Gulstonian Lectures
ON
THE LYMPHATIC SYSTEM AND ITS DISEASES.

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LECTURE I.—PART II.

FROM the preceding short sketch of the early history of the lymphatic system I pass on to its general anatomy.

The lymphatic system is an appendage of, and is supplementary to, the blood-vascular system. It consists of vessels, both trunks and capillaries, and of collections of a peculiar kind of connective tissue—adenoid,—the meshes of which are crowded with round colourless cells. When these are situated in the course of the lymphatic vessels, and are invested with a capsule, we term them lymphatic glands; but if there is a mere reticulum enclosing the cells, and so forming a patch in the submucous or subserous tissue, it is described as a lymph-follicle. Around all such follicles there is a large plexus of lymph-capillaries.

The lymph-capillaries are not continuous with the blood-capillaries, but are arranged in a network which lies in the meshes of the plexus formed by these vessels, from which they are separated by intervening tissue-elements. They are composed of a single layer of flattened cells, nearly equal in length and breadth, with a markedly sinuous outline. When passing into the larger lymphatic vessels they present a varicose appearance, from an incomplete valvular apparatus in their interior.

The larger lymphatics resemble the veins in many points, and, like them, are generally described as possessing three coats or tunics. The external coat consists of connective tissue, with elastic fibres and some plain muscle. It gradually blends with the middle tunic, without any abrupt line of demarcation. It contains the vessels and nerves for the supply of the vessel, and these are arranged in a plexus in this *tunica adventitia*. The middle coat is composed of muscular fibres with a small admixture of elastic tissue. Most of the fibres are arranged circularly, but many of them are longitudinal and some oblique. The internal coat is formed of a layer of longitudinal elastic fibres, on which the endothelial cells rest. These are sinuous and flattened, as in the lymph-capillaries. The larger vessels all contain valves, which are simple reduplications of the inner coat, forming two semilunar segments. They are much more numerous than in the veins, and give the lymphatic vessel a peculiar moniliform appearance.

The views entertained by the earlier anatomists as to the commencement of these vessels differed in regard to the two sets, the lacteals and the systemic lymphatics. As it was held by them that the arteries and veins had orifices for the purpose of absorption, it was naturally inferred, on the discovery of the lacteals, that these began in a similar manner, and so they were said to commence in open mouths on the villous coat of the intestine. The main question in debate, up to recent times, was whether these orifices were discoverable by the microscope, or invisible, as maintained by Ruysch and Leeuwenhoek. Lieberkühn, in describing the villi, says: "A small branch of a lacteal is expanded into an ampulla, or vesicle, not unlike a small egg, in whose apex a very minute foramen is detected by the microscope." Hewson describes one or more orifices which only appeared when the villi were completely erected. Cruikshank is still more explicit: "In some hundred villi I saw the trunk of a lacteal, forming or beginning by radiated branches. The orifices of these radii were very distinct on the surface of the villus, as well as these radii themselves, seen through the external surface, passing into the trunk of the lacteal; they were full of a white fluid. There was but one of these trunks in each villus." Mascagni, however, does not figure these orifices in his plates; and Magendie disbelieved in their existence. They have not been seen by later observers, and there can be no doubt now that the lacteal commences in a blind extremity. The radii described by Cruikshank are the bands of adenoid tissue around the central vessel.

The systemic lymphatics were at first believed to be continuous with the arteries, and, being too small to receive red blood, were destined to assist the veins by taking back some of the liquid portion. Thus Cowper, in his introduction to Bidloo's plates, says, "The true origin of the lymphatic vessels is from the extremity of the bloodvessels, and their office is to carry back the superfluous serum, which is more copious in the arteries than is convenient in the veins," &c. Bianchi thought that the lymphatics were given off laterally from the arteries whilst the veins came from the terminations, and many writers supposed that some lymphatics corresponded to the arteries and others to veins, and that the lymph passed from one set to the other. Some added the excretory ducts of the glands as another origin of the lymphatics; thus Ferrein stated that those of the liver come from the biliary canals, whilst Hamberger thought that they might arise from a cavity of any kind, either from an artery, a secreting tube, or an excretory duct. Such conclusions were drawn either from imperfect observations, from the forcible injecting of the bloodvessels and ducts, from occasionally finding the lymph blood-stained, or from the lymphatics containing the special secretion of a gland. Other anatomists, however, like Malpighi, Winslow, and Douglas, were very doubtful about the origin, and say that this is difficult to discover, and by no means certain.

The origin of the lymphatics was one of the subjects of angry controversy between Monro Secundus and William Hunter. They both taught that these vessels began in the spaces of the cellular tissue, and disputed most bitterly concerning the priority of the discovery. Monro thought that the spaces formed the mouths of the lymphatics, whilst Hunter, in his later writings, suggested that they were filled by lateral rupture of the vessels when these were distended with injections. Neither Hewson nor Cruikshank describes the commencement of the lymphatics; the former seems to agree with Hunter in the view that the origin from the spaces of the cellular tissue was only an apparent, and not a real beginning, as Monro and Meckel thought, whilst the latter expressly states that he could find no orifices to the lymphatics such as he had seen to the lacteals. Mascagni never saw any, and was also very doubtful as to their existence. Fohmann, Lane, Lanth, and Panizza have all described networks in the cellular tissue in various regions, but without any orifices. Sappey, in 1869, summed up their researches in the following proposition: "Tout lymphatique a pour point de départ un réseau." The presence of the network is an undoubted fact, but modern microscopy has gone a step further, and shown us the rootlets of the system in many places, and this is now allowed also by Sappey, although his recent description of the radicles is entirely different from that given by all other observers.

Before discussing the relation of the lymphatics to the connective tissues, I must describe those tissues very briefly, as the views concerning their structure have recently undergone a complete change. They are made of bundles either parallel or interlacing in every direction. Each bundle presents a longitudinal striation, indicating its subdivision into minute fibrillæ, which are held together by a mucin-yielding cement. Surrounding the bundles are large, flat, granular, nucleated cells, applied to the surface like a layer of endothelial cells, but differing from a complete endothelial sheath in not entirely investing the bundle, for the cells merely touch by their borders, and a large extent of the surface is not covered. The cells are most abundant in young, rapidly-growing connective tissues. Besides these, some other cells, round, granular, and resembling in every respect lymph-cells, are always found free in the interstices of the tissues. This description is quite different from that of Virchow and his school, who, mainly relying on the use of acetic acid to elucidate their structure, described these tissues as containing stellate, anastomosing, hollow cells among the bundles, and to such cells the generic name of connective-tissue corpuscles has been given.

It has been known for a long time that injections into the spaces between the bundles of connective tissue followed a definite course and passed into the lymphatic vessels, so that Mascagni and Fohmann looked upon this tissue as being constituted simply of networks of lymphatic vessels; and Breschet propounded a similar hypothesis: "A mes yeux, le tissu cellulaire est le point principal d'où les vaisseaux

lymphatiques surgissent; c'est le sol dans lequel leurs racines s'implantent, et dans la profondeur duquel elles se ramifient avec des formes particulières." This happy description of Breschet has proved a great physiological truth. The only point now in question is the exact anatomical relation of the interstices of the connective tissues to the commencement of the lymphatic system. That they are lymph-reservoirs, and that the lymph-capillary is their discharge-pipe, is placed beyond doubt by all recent investigations. But these connective-tissue spaces have been regarded (1) as simple lacunæ in the tissue; (2) as lymph-chambers with a definite wall; (3) as cells, the connective-tissue corpuscles of Virchow, the juice-cells (Saftzellen) of Kölliker. Such cells do not exist, but are merely an optical illusion, so that we need discuss no further the plasmatic system of these histologists, who taught that the cells contained a cavity from which the lymphatics arose.

A great step in advance was made by Von Recklinghausen in his classic memoir on the lymph vessels in 1862. He clearly showed that the lymph circulated, not through the cells, but through canals or spaces without definite walls, in which the cells were situated, and that these spaces were in immediate relation with the lymph-capillaries. Ranvier's view is much the same; he, however, lays great stress on the fact that direct communications between the connective-tissue spaces and the lymph-capillaries have not yet been conclusively demonstrated. This is of very little importance, so far as their physiological relation is concerned, when we consider how very intimate is this connexion, and how very thin and permeable to liquids is the wall of an ultimate lymphatic radicle. The interstices in the connective tissue are undoubtedly lymph-chambers, differing only in size, and not in significance, from the lymph-sacs of the frog and the serous cavities of the higher animals. There is no special lymph-canalicular system; the serum of the blood passes through the walls of the capillaries in a more or less rapid stream, in accordance with the blood-pressure, irrigates the connective tissue, collects in its interspaces, and is drained off by the efferent lymphatics, in which the pressure normally is practically *nil*.

Are the connective-tissue spaces then simple interstices, as taught by Ludwig and Tomsa, and since described by Wywodzoff and Gianuzzi? With these observers, connective-tissue spaces and lymph-lacunæ are synonymous terms. Many recent microscopists have undoubtedly demonstrated a lining to these spaces in many places, the endothelium forming it being very similar to that which constitutes a lymph-capillary. The cells are nearly equal in length and breadth, and the borders are especially characteristic in possessing well-marked dentations. Tommasi, His, and Mihalcovics found this characteristic kind of cell lining the lacunar spaces which Ludwig and Tomsa described in the testicle, and this fact has determined later observers to describe as true lymphatic chambers all spaces lined with cells possessing this peculiarity. Thus, Schwalbe describes as lymph-spaces interstices between the acinous glands of the duodenum which are lined with this endothelium, and which he has shown by injection to communicate with the lymphatics of the peritoneum; whilst Asp has gone a step farther, and has considered similar spaces in the connective tissue of the salivary glands to be lymphatic in nature, although he could not make out their connexion with the larger lymphatic vessels. So now the method of discovering the commencement of the lymphatics is completely reversed; instead of making injections and examining the tissues afterwards by the microscope, observers look for the characteristic endothelial cells, and draw their conclusions therefrom, and injections are merely used as adjuncts in the proof. By this plan, Schweigger-Seidel has brought into the category of lymph-chambers the spaces between the muscular fibres of the heart, Schwalbe those between the choroid and sclerotic, and between the sclerotic and the capsule of Tenon, and the subarachnoid space, whilst Axel Key and Retzius have followed these cells not only along the brain and spinal cord, but down the nerve-roots even to the peripheral ramifications of the nerve-fibres.

Bursæ mucosæ are intermediate structures between simple connective-tissue spaces and the serous cavities. They are formed by a collection of spaces in which the partitions have been mechanically broken down as a result of friction, and the synovial sheaths of tendons are the effect of a similar process.

Under the endothelium of the serous membranes there is, at certain points, a close plexus of lymphatics, whilst in other places these vessels are very few, or do not exist. It would appear that they follow very closely the distribution of the bloodvessels. They are much more numerous on the visceral than on the parietal aspect of these membranes. They can be readily injected under the visceral lamella of the tunica vaginalis, under the peritoneum investing the liver and central tendon of the diaphragm, on the cardiac surface of the pericardium, and the peripheral parts of the pulmonary pleura. Very few can be found on the parietal surfaces generally, and they would seem to be entirely wanting in certain regions, such as under the anterior layer of the peritoneum, the parietal pericardium, and that part of the costal pleura which covers the ribs, although some can be demonstrated in the intercostal spaces. These subserous plexuses are in immediate connexion in many places with the serous cavities which are now considered as lymph-chambers analogous to the huge lymph-sacs of the frog and lower animals, into which lymphatics open in large numbers.

Von Recklinghausen suspended solid particles in water, oil, and milk, and traced them from the peritoneal cavity into the lymphatics. By this means he demonstrated stomata over the central tendon of the diaphragm, and showed that they were in communication with the subserous lymphatic plexus. Ludwig and Schweigger-Seidel confirmed his observations on animals, and Rajewsky showed that they were also true in the human subject. Dybkowsky saw particles taken up by stomata in the pleura, and Skwartzoff has observed orifices on the cardiac surface of the pericardium. More recently Klein has thus described these stomata:—"We distinguish two kinds of stomata on the surface of the serous membranes—viz., stomata vera and pseudo-stomata. The stomata vera are again of two kinds: (*a*) They represent the mouth of a vertical lymphatic channel, which is lined by a special layer of endothelium, and which channel leads into the lumen of a superficial lymphatic vessel; and (*b*) they represent a discontinuity between the endothelium of the surface, and lead into a simple lymphatic sinus, which, as we have seen, represents a cavity lined only on one side with an endothelium..... The first kind are found on the peritoneal surface of the centrum tendineum, and are quite as numerous in the omentum and pleura, ... and exactly like them are the stomata of the septum cysterna lymphatica magna of frogs and toads described by Dogiel and Schweigger-Seidel. The second kind of stomata vera is to be found in the omentum of rabbits and the mesentery of frogs and toads. They are also very much easier to demonstrate when these membranes are affected with slight chronic inflammation. ..... The pseudo-stomata are superficial branched cells in the serous membranes which lie either totally or partially between the endothelium of the surface. ..... They lie in the lymph-canalicular system."

With regard to this description, it may be mentioned that von Recklinghausen, who recognised both kinds of stomata vera, pointed out that it was doubtful whether the second kind, although considered as openings by Oedmassen, His, and others, were true foramina. Ranvier describes the stomata on the phrenic centre as partially occluded with lymphatic cells, which can be readily displaced by either passing into the lymphatic plexus or falling into the peritoneal cavity. He thus takes up an intermediate position between Schweigger-Seidel, who thought that the openings were always patent, and Tourneux, who affirms that there is no real opening.

Are the synovial cavities of joints to be included among the lymph-sacs? The lymphatics of the synovial membrane lie in a plexus immediately under the endothelium, sometimes separated therefrom by the finest blood-capillaries; from these, branches pass outwards in the membrane to vessels which are very numerous and very large, and enclose the bloodvessels. No direct communications have been shown between the lymphatics and the cavity of the joint. Böhm made some experiments in which he found that milk-globules and particles of cinnabar were removed from the interior of the knee-joint and deposited in the inguinal glands; but in the meanwhile the joint had become violently inflamed. Tillmans used carmine, indigo-carmine, and Berlin-blue, and only succeeded in obtaining a diffusion of the colouring materials into the substance of the synovial membrane, and occasionally the filling of the intermuscular lymphatics in the upper part of the thigh.

Under the endothelium lining the vascular system generally Sappey could find but few lymphatics, and these were beneath the endocardium. From the large and small arteries,

from the large and small veins, and even from the thoracic duct itself, he was unable to trace a single lymphatic vessel. These observations are the more noteworthy, as former anatomists, such as Hunter, Cruikshank, Mascagni, and Breschet, looked on the internal lining of the vascular system as presenting copious plexuses of lymphatics. Eberth and Belajeff have succeeded more recently in injecting the lymphatics beneath the endocardium of the calf, and describe them as arranged in irregular networks; but they evidently belong to the muscular tissue rather than to the endocardium itself. They are absent in the chordæ tendineæ, very scanty in the valves, and less numerous in the auricles than in the ventricles.

In the skin the lymphatics take origin from the most superficial layer of the cutis vera, but they vary greatly in number in different parts, and are more numerous the more distant the part is from the heart. The special sites in which they are abundant or scanty will be subsequently referred to. From the superficial network small trunks pass inwards through the interspaces of the true skin and anastomose on the deep surface, thus forming a superficial or subpapillary and a deep or subdermic plexus. From the latter emerge the trunks which run in the cellulo-fatty layer under the true skin. Similar double networks occur in the glans penis, and lymphatics are especially numerous at the junctions of the mucous surfaces with the skin.

Lymphatic networks, composed of vessels whose calibre is larger than that of the blood-capillaries, have been described by Rajewsky around the collections of fat-cells in the adipose tissue.

In the small intestine the radicles of the lymphatic system are specially modified for the absorption of fat. They differ greatly from those in other parts of the body, which only take up the overflow from the blood-capillaries, and hence necessitate a fuller description. They are prolonged into the villi in man as a single vessel, or very rarely two, in the sheep as a copious plexus. They occupy its centre, and are larger than the blood-capillaries which surround them. They present here and there minute contractions and dilatations, and at the base of the villus terminate in a plexus (rete angustum) subjacent to the bases of the crypts of Lieberkühn. From this plexus straight vessels pass to a second one in the submucous tissue, termed the "rete amplum." This is arranged around the sides and base of each solitary gland or lymph-follicle in a Peyerian patch, and from it efferent trunks pass through the muscular coat, and open into a series of still larger vessels, which are found beneath the serous tunic, especially along the attachment of the mesentery. The vessels which emerge from the submucous plexus contain valves, whilst these are absent in the smaller vessels and the plexuses. Where the closed follicles lie deep in the submucous tissue the lymphatic plexus entirely surrounds them, but where they are more superficial it only surrounds the base and sides. The walls of the lymph-capillaries are completely closed towards the glands. At the mesenteric attachment of the intestine the vessels are partly continuous with the large lymphatics of the mesentery, and partly anastomose with the subserous vessels, so that from the central vessel in the villus to the efferent trunks between the layers of the mesentery there is a continuous channel, interrupted only by the networks. The chief intermuscular plexus is between the circular and longitudinal muscular layers, and from this large vessels also proceed to the attachment of the mesentery. There are other subsidiary networks threading the whole extent of the muscular wall, and these also communicate with the submucous group.

The arrangement in the large intestine, and in the mucous membranes generally, is much the same as in the skin. The networks are either single or double, and vary only in the closeness of the meshes and the calibre of the vessels. The largest vessels are found in the urethra. In the filiform papillæ of the tongue, there are small, blind vessels resembling the lacteals, which pass into a network at the base of the papillæ. The papillæ on the mucous surface of the œsophagus contain no lymphatics. The network is single in the mucous membrane of the tongue, ureter, urethra, and œsophagus; but it is double, as in the small intestine, in the trachea, stomach, and large intestine. The deeper network always has wider meshes, and is made up of larger and stronger vessels. Where the network is single, the vessels run parallel to the axis of the tube; in the trachea the superficial plexus is also parallel to the tube, but the deep one is placed at right angles. In the stomach, the superficial plexus is arranged around the blind extremities of the gastric follicles, and the deep one in the submucous tissue. Teichmann stated that there were no lymphatics between the follicles, but the radicles of the system, according to Loven, ascend between the glands, and are dilated in many places into sinuses.

In the connective tissue surrounding the bundles of nerve-fibres, and holding them together, there are numerous characteristic lymph-capillaries, which are in immediate connexion with the interspaces of this tissue, as in ordinary connective tissues. No vessels are found in more intimate relation with the fibres, but in the fine intrafascicular connective tissue there are spaces in which the blood-plasma is received, and these are continuous, through the lacunar system in the lamellar sheath, with the connective-tissue spaces outside. The lymph-capillaries in the sciatic nerve of the dog run along the trunk of the nerve for some distance, and have been followed to the pelvic glands.

In their search after the lymphatics of the brain and spinal cord anatomists, such as Ruysch and Fohmann, would seem to have distended with air or with mercury the connective tissue of the subarachnoid space, and, although they failed to trace any vessels from thence to the glands, they considered the network as a lymphatic one giving origin to vessels which accompanied the pia mater, and were prolonged into the cerebral mass. Efferent vessels ran outwards with the nerves and arteries through the foramina at the base of the skull. Mascagni doubted whether these were true lymphatics, and termed them "vasa æmulantia lymphatica," but he himself described others—viz., some on the outer surface of the dura mater accompanying the middle meningeal vessels, and running through the foramen spinosum into the glands along the internal jugular vein, some on the surface of the brain which he lost near the longitudinal sinus above, and others which left the cranium with the vertebral and internal carotid arteries and the internal jugular vein.

In 1859 Robin described a lymphatic sheath enclosing the bloodvessels of the brain and spinal cord as a structureless membrane, leaving a space which contained a colourless fluid and free nuclei. His pointed out that this space was lined with flat endothelial cells, and termed it the perivascular space. Other observers look on such spaces as pathological, as they were judged to be by Kölliker and Virchow, who had observed them even before Robin, but only in the brains of the insane. Boll thinks that two kinds of perivascular spaces have been confounded, some of which are natural, whilst others are artificial or pathological. Lymphatic sheaths around the arteries can be easily demonstrated in healthy brains, around the vessels of the retina, in the interior of many glands, and in many other situations, so that no doubt can remain of their being normal structures. They envelop the vessels in the same manner as the serous pericardium envelops the heart, and the peritoneum the intestines, and so resemble the serous cavities in miniature.

The lymphatics of muscle are of large size, and form a coarse plexus in the connective tissue between the bundles. They apparently pass only for a short distance between the fibres, for they have never been traced beyond the connective tissue septa of the muscle. Their mode of origin is therefore still obscure, although the large trunks have been seen and described by almost every observer since the time of Rudbeck.

ON CHRONIC BRIGHT'S DISEASE, AND ITS ESSENTIAL SYMPTOMS.

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(Continued from p. 263.)

THE question I have endeavoured to raise in these papers is necessarily a wide one; it includes many collateral subjects, each of which requires to be treated at length, and worked out in detail. At present all that can be done is to sketch the broad outlines of the whole, and leave the details to be filled in more completely hereafter. A short account of the clinical aspect of the disease will therefore first be given; subsequently each group of symptoms will be more fully discussed, and illustrated by cases.

My first and main contention, as I have already stated, is that high pressure exists as a constant condition in the circulation of some individuals, and that this condition is a symptom of a certain constitution or diathesis, and indicates certain well-defined tendencies to disease. For this diathesis no name at present exists; it might perhaps very properly be termed Bright's diathesis, inasmuch as it tends to produce the disease bearing his name. Exception may perhaps be taken to the use of the word diathesis; it is considered by some an inaccurate word, without definite meaning. Perhaps no more exact definition of the nature of a diathesis can be given at present than to say that it implies a certain habit or tendency towards wrong-doing of a particular kind, by either blood, tissues, or organs; and it would appear that if we include blood among the tissues we should be nearly correct in limiting these diseased tendencies to certain tissues. Much confusion appears to exist in the minds of many between *diatheses* and *temperaments*. These two terms have completely distinct meanings, and it is important to distinguish clearly between them. The former may be regarded as a pathological expression implying certain tendencies towards disease; the latter as a physiological one, describing certain habits of the body in health, or modes of nutrition. Unfortunately, some of the former conditions are synonymous with some of the latter, and thus great confusion has arisen. True, *temperaments* are of very old date, and doubtless took origin in old and exploded medical superstitions; yet many think, and I believe rightly, that under the names of certain temperaments may be grouped certain classes among individuals, the individuals of each class having many similarities of development and nutrition, both physical and mental, as well perhaps as certain similar tendencies towards disease. On the other hand, *diatheses* apply wholly to tendencies towards disease in individuals in whom the disease may or may not have manifested itself. A diathesis may be either inherited or acquired; those best known are the gouty, rheumatic, nervous, lymphatic or tubercular, cancerous, and perhaps syphilitic. To these I would add the "high-pressure," or Bright's diathesis. All these diseases are characterised by groups of minor disorders, produced by their local manifestations. They are not diseases with only one set of symptoms, or affecting only one organ, like pneumonia, gastric catarrh, or nephritis, but they imprint their own peculiar features on the local diseases which they produce. That there are such conditions as these I suppose few would deny. Their relations to temperaments it would be out of place to discuss here.

Overwhelming proof of the existence of this high-pressure diathesis can be readily obtained by anyone who cares to investigate the matter with the sphygmograph; all that I ask is that it should not be denied without such an investigation. People who are subjects of this diathesis frequently belong to gouty families, or have themselves suffered from symptoms of that disease; in others it may be acquired, and frequently results from lead- or alcohol-poisoning, or takes its rise in pregnancy or scarlatina. In these cases of acquired poison the disease commences frequently in an acute form. Its tendency to become acute is in direct ratio to the acuteness of the poisoning. In yet other cases there is no distinct poison to be traced; it would rather appear to result from forms of indigestion and mal-assimilation. These individuals often have certain characteristics when in health. The chief are as follows:—Habitual constipation; some forms of dyspepsia; often signs of imperfect circulation, such as cold hands and feet, not unfrequently palpitation, sometimes shortness of breath on exertion. Their skins are often thick, of velvet-like softness, and very white. These characters of the skin appear to me to be frequent, but by no means constant, signs of the diathesis; Cullen's observation on the thick skin of gout is quoted by Sir Thomas Watson. The symptom of high pressure occurs very early in life; I cannot say how early. I may note in passing that the pulse of a healthy child is of higher pressure, on account of better arterial tone, than that of the average adult. It exhibits what may be considered the normal standard of pressure, while the average adult pulse is below the normal standard, which is only seen in particularly healthy individuals, except in those of the high-pressure diathesis, in whom the pressure rises considerably beyond the normal.

Let it be clearly understood, the existence of this abnormally high pressure does not necessarily mean disease, but only a tendency towards disease. It is a *functional* condition, not necessarily a permanent one, though it is generally more or less so in these individuals. These persons appear to pass on through life pretty much as others do, and generally do not suffer from their high pressure except in their petty ailments upon which it imprints itself; these mostly belong to one type, and are generally very greatly relieved by a purge and a little dieting. In other words, their arterial pressure rises at these periods and calls for treatment. After these little attacks their pressure often falls and remains low for a time; gradually, however, it again commences to rise, attains too great a height, and they have another breakdown. These breakdowns may be of more or less severity and frequency, according as the diathesis is more or less strongly marked; perhaps they consist of only a little "out-of-sortishness," sometimes severe headaches, often hemicranial, menorrhagias in females, epistaxis in males, temporary albuminurias or hæmatinurias, palpitations, breathlessness, sleeplessness, or the reverse, loss of memory, various neurosal or mental disorders, severe dyspepsias, constipation, or some such troubles; if more severe they may take the form of an attack of gout or acute Bright's disease, or of bronchitis. But the attack passes off, and things continue much as before. As age advances the enemy gains accessions of strength; perhaps the mode of life assists him—good living and alcoholic beverages make secure his position, or head work, mental anxiety, hurried meals, constant excitement, inappropriate or badly cooked food, or any other of the common but undesirable circumstances of everyday life, tend to intensify the existing condition, or, if not previously present, perhaps to produce it. Now under this greatly increased arterial pressure, hearts begin to hypertrophy and arteries to thicken; what has previously been a functional condition tends to become more of the nature of an organic one. Breakdowns are now more dangerous, they happen much as before, but more serious ones begin to appear. The individual has now passed forty, perhaps fifty years of age; his lungs begin to degenerate and become emphysematous; he has a cough in the winter time, and gradually drops into a condition of chronic bronchitis; his right heart dilates, and his condition becomes more or less mixed in the aspect it presents to us; but by his pulse you will know him. Or again his symptoms take another line: his heart fails him, it can no longer perform the high pressure work demanded of it, it therefore fails and dilates; the individual falls into a bad way; a mitral murmur appears; his pulse becomes weak and irregular, though still *persistent*, and so he will remain till he dies or is relieved by a timely reduction of pressure, which allows his heart to recover, and sets him on his legs again. These cases are generally regarded as ordinary cases of mitral (or sometimes aortic) disease, *but no valvular disease is usually present*.

In another case the heart may not dilate severely; its hypertrophy, with some amount of dilatation, causes more or less trouble; perhaps he comes under observation for some functional disorder caused by it—one of those exacerbations previously noticed; a little albumin may now be found in the urine, the hypertrophied heart and thickened vessels may be recognised, perhaps some hæmorrhages seen in his retina, and he is immediately claimed as a case of chronic Bright's disease. The kidney may have a catarrh and the albumin increase in quantity in the urine, and some dropsy may appear. In other cases the whole stress of the disease seems to fall on the kidney, and it presents the aspect of acute Bright's disease. This terminates the life of many, as the table in the previous paper clearly indicated.

Yet another class of individuals fail through the arteries. These, I am inclined to think, are more especially the gouty and syphilitic ones. Atheroma is their great enemy; it may attack their aorta or large vessels so badly that they get aneurism, and fall victims to this disease. More commonly it causes general aortitis deformans, and, creeping from the vessel on to the valves, incapacitates them. The case then appears one of aortic regurgitation, and is regarded usually as such. The pulse will usually show the more skilfully hid enemy, whom it is necessary to attack, if the patient is to be relieved; it is a pulse of high pressure, and is constantly full, although an aortic regurgitant murmur exists, which usually produces an empty or collapsing pulse. On the other hand, perhaps the aorta will more or less escape, while the smaller vessels, especially those of the brain, are the main object of attack. Here we shall have a few warnings—headache, vertigo, epistaxis, a passing paralysis, a more severe apoplectic seizure, and then the final blow.

Take the warning which the pulse offers, reduce the arterial pressure, and the patient's life may be prolonged. Or the attack may be more insidious and more difficult to guard against; the atheromatous vessels may become plugged, or by their rigidity may seriously impede blood-supply, and softening of the brain may result. Amidst the general diffusion of atheroma, the coronary arteries may suffer severely; then the stress falls doubly on the badly-nourished and overtaxed heart. Attacks of angina warn us of the impending danger, which it is difficult indeed to combat, though temporary relief may be obtained. At last on one occasion the arterial spasm or increased resistance is worse than usual, and the overtaxed heart dies paralysed by the distension which its degenerate muscle fails to overcome.

Uræmia, so called, includes another group of cases which are seen in this disease, and sometimes death is produced by it. This more frequently occurs during the acute disease or during an acute attack supervening on the chronic disease; occasionally such symptoms are the only signs of the sudden exacerbation of the malady. These symptoms may be divided into three great groups: those arising from the gastro-intestinal canal, those from the lung, and those from the brain. In the first group are those attacks of vomiting and diarrhœa so common in Bright's disease; they are, doubtless, due to the gastric or gastro-intestinal catarrh which are well known as complications of the disease; it merely means that in these particular cases the stress of the disease has fallen upon these organs. It is well known that the stomach undergoes similar changes to the kidney in Bright's disease, that acute catarrh is found in the stomach when it exists in the kidneys; moreover, as I have before remarked, the disease affects all the mucous membranes and the skin as well as the kidneys, and it may probably make either its main point of attack. The symptoms known as uræmic asthma are rather more difficult of explanation. The theory that they are due to spasm of the branches of the pulmonary artery, caused by the poisoned blood, I cannot very readily accept; others can be suggested which appear to me equally probable. Many cases may be of the nature of ordinary asthma, due to reflex contractions of the muscles of the bronchial tubes, excited by the bronchitis, which is so common, just as the vomiting is excited by the gastric catarrh; other cases, again, appear explicable by a temporary dilatation of the right side of the heart (similar to that which occurs in the left in angina pectoris), due to the high pressure in the right side brought about by the emphysema and bronchitis, which may at any time be suddenly increased by the inhalation of cold air, irritant fumes, or some similar exciting cause.

(To be concluded.)

COMBINED USE OF CUTTING AND SPLITTING IN A SEVERE FORM OF STRICTURE.

BY C. F. MAUNDER,
SURGEON TO THE LONDON HOSPITAL.

M. M——, aged forty-two, had suffered from stricture for a period of fifteen years. During the first five years of this period the stricture had been split three times, and on each occasion a relapse followed. During the last nine years voluntary micturition had been altogether in abeyance, and the bladder had to be periodically emptied with a small catheter. Occasionally retention supervened.

When this gentleman consulted me, about a month or so ago, I found that the meatus would only admit a No. 9 catheter, and the urine contained a quantity of muco-pus.

The first step in the treatment consisted in enlarging the meatus by incision. This I did on February 10th. A week later (the 17th) I divided the stricture anteriorly with Mr. Teevan's urethrotome, and followed it up immediately with Mr. Davy's modification of Holt's instrument, which admits of immediate dilatation up to No. 18. I then emptied the bladder with a full-sized instrument, and the operation was completed. A No. 9 silver catheter was used twice a day, either by myself or by the patient, for two or three days; then Nos. 10, 11, and 12 were gradually substituted to maintain the stricture well dilated. The patient had a tendency to rigors both before and after the operation, but quinine and opium given thrice daily soon checked this. The most gratifying feature in the case is that on the fourth day subsequent to operation the patient micturated voluntarily, an act which he had not performed for the last nine years.

My own experience of rapid dilatation by Holt's method for the relief of intractable stricture has been highly satisfactory, the annual passage of a full-sized instrument having been in a very large majority of instances alone necessary. But splitting having failed thrice in this instance, I resolved to try internal incision, supplemented, if necessary, by thorough rapid dilatation. By these means I sought to determine the point at which the stricture should be divided, as well as to limit within safe bounds the extent to which it should be cut.

ON CASES OF PARADOXICAL TEMPERATURES.

BY HORATIO DONKIN, M.B. OXON.,
SENIOR ASSISTANT-PHYSICIAN TO WESTMINSTER HOSPITAL; PHYSICIAN TO EAST LONDON HOSPITAL FOR CHILDREN.

(Concluded from p. 369.)

THE next instance I shall quote was published by W. Iliffe, F.R.C.S., in THE LANCET of Nov. 23rd, 1878. In a case of a girl of eighteen, a convalescent from measles, there was for ten days a frequent remarkable variation of temperature from normal to 107°, the high degree being accompanied by rapid pulse, quick respiration, flushed face, nervous manner, dry skin, and coated tongue. In some instances the tongue would become quite clean in half an hour, as the temperature went down. Beyond amenorrhœa, no further abnormal symptoms were discovered; and no other cause was found to which the peculiar features of the case could be ascribed.

In a case published by Dr. Ormerod, in THE LANCET of Nov. 9th, 1878, the temperature appears to have risen to 115·8°. On one occasion it is stated that after a registration of 113° had been taken, and it had been suggested that friction of the arm against the thermometer would cause the index to rise to this height, the patient's arm was taken out of the night-dress about half an hour afterwards, and a thermometer of one of the medical gentlemen present was placed in the axilla with the arm held tight to the side. It then registered 99°. In the "remarks" appended to the case, this occurrence is noted as being suspicious, and militating against the genuineness of the phenomena. But the fact alone of a low temperature following on a high one of half an hour previous to the second registration is quite in accordance with several of the observations taken in my case under strict precautions. It would appear that in this case as well as in mine the high temperatures were evanescent. With regard to the friction theory, a reference to my report in THE LANCET of May 11th puts this possible and apparently plausible solution of the difficulty in my case out of court on many occasions, and therefore inferentially on all. Direct experiment, too, with rubbing a clinical thermometer, will, I think, prove to anyone how difficult it is to raise the index to any considerable height without *perceptible* movement, not only of the arm, but of the body generally. Some effort, difficult to conceal, and several minutes are required, when holding the bulb of the thermometer tightly between thumb and finger and folded in a handkerchief or towel, to raise the index from 98° to even 103°. This friction theory has been advocated as a sufficient cause for paradoxical temperatures by Dr. Sellerbeck among many others, in the *Berlin. Klin. Wochenschrift*, quoted in the *London Medical Record* for April, 1878, when, in a case of the temperature unaccountably rising to 102·9° only, the patient confessed she had used friction with the night-dress. It is further stated by Dr. Sellerbeck (though the assertion certainly requires corroboration) that it is *easy* to raise the index to 114·8° by rapidly rotating the bulb of the thermometer in a fold of linen, or to 108°, in about three minutes, between the bare skin of the arm and thorax. The reporter of my case, in the *Record* of June, 1878, states in a note his opinion that the temperatures recorded by me can apparently be explained in this way—an opinion which could scarcely have been given had he read through

the case of which he gives an abstract, as some of my observations, in which the *mercury* certainly rose, by whatever means, to 108° or over, were taken in the mouth, the thermometer being watched all the time, and several axilla temperatures were taken when the instrument was either seen or held by the observer. I make these remarks on the friction theory in view of the obvious plausibility of its adducement, and to show that whatever other fraudulent means of raising the index of the thermometer were employed, and which may have escaped my observation and that of many others, this at least is out of the question. For a further consideration of the question of fraud in my case, I must again refer to my first report of it. In the case of Dr. Ormerod's, to the account of which, in THE LANCET, the reader is referred, no obvious cause was detected for pyrexia. There was great pain complained of, but not explained, in the right hypochondrium. It will be seen on reference to this case that, unlike mine, there was a considerable rise of the pulse-rate, though not always in proportion to the temperature. The patient, moreover, was obviously hysterical.

It may be noted here that three of the above quoted four cases showed disturbance of the menstrual functions; three showed more or less obvious hysterical symptoms; all four owned the common fact of female sex; and none evinced sufficient organic disturbance to account in any recognised way for the high degrees of temperature recorded by the thermometer.

While urging that in the above cases a sufficient amount of probability as to genuineness of facts is made out to arrest attention on the matter, I do not lose sight of the weighty *à priori* arguments against such allegations. Arguments of this kind are, in a scientific investigation, of importance in exact proportion as the data, founded on observation and experience, which go to make up the *à priori* dictum are sufficiently numerous and well ordered to comply with the necessities of a scientific induction. In the investigations of some subjects previous knowledge of the matter is sufficiently ample to satisfy these conditions, and so to justify the use of an *à priori* argument against any apparently contradictory facts. But the question naturally arises here, Are we in possession of knowledge regarding animal temperature under all conditions—of its production and modification—in a sufficiently large quantity and accurate form to warrant us in denying *in toto* the possibility of the phenomena which have been above related, and which appear so difficult to explain away? In other words, are the following assumptions, which are made with regard to reported cases of paradoxical temperature, scientifically infallible?—1. That temperatures such as have been recorded in these cases are, some of them, incompatible with the degree of health alleged, and others with the continuance of life. 2. That it is impossible for cooling to take place so rapidly as alleged—e. g., for the blood to cool down seven or eight degrees at least in a few minutes.

One or both of these objections are almost universally made in some form to the allegations of paradoxical high temperatures. It is taken for granted, firstly, in all clinical thermometric observations, that the temperature registered in the axilla, mouth, or rectum (due precautions being taken to exclude the thermometer from the action of the external air, &c.), and making allowance for certain other conditions, is approximately the temperature of the whole mass of circulating blood; a registration of 104° in fever, for example, meaning that the whole mass of blood is about that temperature or somewhat higher. The impossibility of this mass of blood cooling down to normal in a few minutes is assumed, no obvious mode of disengagement of body-heat being detectable, and therefore the allegation of such facts is set aside without discussion. With respect to the first of these objections, it may fairly be said that the subject of animal thermometry has not been so worn out that it is impossible to believe in the existence of very high temperature without the concomitance of other well-known symptoms. As regards the second objection, I wish to raise no counter-theory as to the occurrence of these paradoxical temperatures, but would merely suggest (1) that rapid cooling of circulating blood in the human organism, considering the systemic complexity of that organism, may be connected with conditions at present not understood, and not be a simple question of accepted physics; or (2) that the temperature taken on skin or mucous membrane may possibly represent surface-heating only, comparable, though generally diffused as to surface, to the blush and rise of temperature in certain parts after division of the sympathetic. Might there not be some obscure parallelism between such cases as I have quoted and others showing an obvious connexion of high temperature with lesions of the nervous system—as, for instance, a case related by Sir Benjamin Brodie (and quoted by Dr. Carpenter in his "Human Physiology"), in which, the spinal cord having been so seriously injured in the lower part of the cervical region that the whole of the nerves passing off below were completely paralysed, the heat of the body, as shown by a thermometer placed on the inside of the groin, was not less than 111° Fahrenheit, and this, notwithstanding that the respiratory function was very imperfectly performed, the number of inspirations being considerably reduced, and the countenance being livid? May there not be some temporary modification of the nerve-centres, due to some necessarily obscure, because vital, cause, working temporary results in some such similar fashion? In this connexion a possible relationship might be hinted at between these thermometric phenomena and those now well-known changes of sensation which own, at least, as an important link in the chain of their causation, a mental impression. I allude to the clinical accounts of hysterical anæsthesia, &c., recently brought into prominence by Professor Charcot and others. For in these cases physical effects, presumably as objective as a rise of temperature, and apparently reducible to tests, do confessedly follow, though in some inexplicable way, on certain nervous changes which are only *evidenced* by mental impressions; the phenomena of sensation returning to an anæsthetic part, and anæsthesia induced in a healthy part, being as indisputably a sequence of the application of certain miscellaneous articles to the skin, as the variety of such articles which minister to this effect is great, and their nature immaterial to the end in view. As one further possible link between such phenomena and the paradoxical temperatures to which I have made reference, pointing to nervous origin, it may be noted that variations in temperature are observed in parts subject to the above-quoted remarkable and unaccountable disappearances and reappearances of sensation, the temperature rising as the sensation returns.

The question, however, of the explanation of these abnormal facts, if facts they be, must depend on extended observation subject to strict criticism. My wish in publishing these notes is to place on record what I have found and collected with regard to the possible occurrence of abnormally high temperatures, in order that either it may be shown that an error of observation respecting the alleged facts has been committed, or that some line of explanation may be suggested.

Note.—Since writing the above, I have learnt from Dr. Cheadle, of St. Mary's Hospital, that a case of a girl aged eighteen, convalescent from enteric fever, showed a series of rapidly fluctuating temperatures, beginning about one month after the fever had apparently disappeared. The highest degree registered was 111°. One of 108·6° was taken, with every precaution, by Dr. Cheadle himself; on one occasion 105° was registered simultaneously in the two axillæ and under the tongue; and on another, 103°, 102°, and 103° were successively noted during the course of one quarter of an hour. The case will be published by Dr. Cheadle, who has kindly allowed me to quote the above facts.

CASE OF LITHOTOMY, BY DR. BUCHANAN'S METHOD, WITH THE TRIANGULAR STAFF; SEVEN LARGE STONES; RECOVERY.

BY J. O'DWYER CREAGHE, L.K.Q.C.P., L.R.C.S.I.

THE following report of a case of lithotomy may prove interesting to the readers of THE LANCET.

Juan B——, a strongly-built countryman, of dark complexion, fifty years of age, came under my care in January, 1878. He had all the subjective symptoms of stone, and was suffering fearfully from the bladder irritation; but I was unable to touch the stone with an ordinary sound. However, after two weeks' perfect rest, on a diet strictly limited to milk, and washing out the bladder every day, he improved very much; and then, as I still was unable to touch the stone with an ordinary sound, I asked Dr. Colbourne, of the British Hospital in Buenos Ayres, to see

him with me, and he kindly brought with him a case of short-beaked sounds, and with one of them we at once were able to feel the stone.

On the 26th of February, assisted by Dr. Colbourne, who held the staff, and Dr. Domingo Fernandez, of this place, I operated after Dr. Buchanan's method, and removed, one by one, seven good-sized stones. The largest has a widest circumference of seven centimetres, and the smallest of five centimetres. They are nearly quite round. As soon as concluded I had him placed in bed and a piece of full-sized elastic catheter passed in through the wound. On coming to himself he complained of very little pain. The urine in a couple of hours began to run freely and clear through the wound. The hæmorrhage during the operation was trifling, and it had quite ceased by the time we had finished. Next day (27th) his pulse in the evening was 95, and the temperature 102·2° F. On the 28th the pulse was 95 in the morning and 100 in the evening, and the temperature was 99° in the morning and 100° in the evening. On March 1st his temperature and pulse were normal, and he continued to improve from day to day until, on March 15th (the seventeenth day from the date of the operation), the wound was quite healed, and he was able to get up quite well.

I wish to call attention to the fact that I and two other medical men who attended him before I did were unable to feel the stone with an ordinary sound. The long-beaked sound cannot be made to turn in a contracted bladder so as to get into the pouch behind the prostate.

The only difficulty I experienced in performing this operation was in keeping my knife in the groove of the staff after entering it, and I have to confess that though I was in no way hurried, and delayed considerably so as to feel sure that all was right, I was still unable to prevent it from leaving the groove and cutting for a short way wide of the track. I think this was owing to two circumstances—first, that the staff I had made here was not thick enough, and consequently the groove was not so deep as usual; and secondly, as I now think, because I did not have the horizontal arm of the staff inclined a little to the right, without which, as anyone will see by putting it to the proof, it is extremely difficult to guide the knife along, unless you give it an inclination at such an angle to the staff that you are liable to make the incision in the superficial structures much too wide. However, as soon as I found what I had done, I withdrew the knife until its point was at the angle of the staff, and from there I made the incision outwards and then backwards, as recommended. I then took a probe-pointed bistoury, and easily passed that into the bladder, and incised the prostate, and continued the incision outwards to join the first.

I think that in case I have again to perform the operation I would do it in this way, which is certainly easier. In any case, I think that by lateralising the staff a very little there is no great difficulty; and I desire to record this case as a testimony to the great value of Dr. Buchanan's operation. It is easily performed, is free from risk of hæmorrhage, admits of great dilatation, and, for my part, I cannot conceive how there is any possibility of wounding the rectum.

Analysis of one of the stones showed it to be composed of a uric-acid nucleus, and the rest mixed urate of ammonia with carbonates of magnesia and lime.

Lujan, Province of Buenos Ayres.

NOTES ON TREATMENT OF DIPHTHERIA.

By T. M. LOWNDS, M.D.,

LATE PROFESSOR OF ANATOMY AND PHYSIOLOGY, GRANT MEDICAL COLLEGE, BOMBAY.

As diphtheria has lately occupied considerable attention, I may be permitted to narrate the treatment I have pursued for the last eleven years with almost unbroken success. Looking, with the late Dr. James Begbie, on the disease as allied to erysipelas, I have treated it with one of the persalts of iron, and I may say that, however successful the tincture of perchloride of iron has been in erysipelas, I believe the form of the persalt that I have used is quite as efficacious in diphtheria. My cases of the disease have occurred at all ages, from under one year up to seventy-six, the last being that of my oldest patient. The fatal case (seen in consultation) was one immediately following scarlatina, and it proved fatal in two days.

A large number naturally comprises a vast proportion of cases of slight severity, some of which would probably have done well under any treatment which did not lessen the powers of life; but upwards of twenty were cases very severe, if judged by the great depression of the vital powers, the dusky hue of the countenance, the deep redness of the fauces where the exudation did not conceal it, and, lastly, the appearance of the characteristic of the disease—the throat exudation.

The general form of prescription, which I have used invariably, modifying dose and frequency of administration according to the age of the patient and the severity of the disease, is as follows: Tincture of perchloride of iron, three to four drachms; solution of acetate of ammonia, an ounce and a half to two ounces; chlorate of potash, one drachm to a drachm and a half; water to eight ounces. It must be observed that in this mixture the perchloride of iron is converted into the peracetate, and there is also contained a portion of muriate of ammonia. There is also chlorine liberated, at least it is so when the tincture or solution is added to chlorate of potass; but as these notes have reference solely to treatment, I need not refer further to the changes which take place. This mixture I have used as frequently in the worst cases as a tablespoonful every hour, during the first day or days of treatment. I have never interfered with the sloughing exudation in any way, only prescribing a gargle or wash containing half a grain of permanganate of potass in an ounce of distilled water, to be used frequently. This may be applied with a sponge or a brush, or inhaled as atomised vapour. I have always tried to get one evacuation daily from the bowels, and have supported the powers of life by wine, soup, milk, &c., as each case seemed to demand. How free such support has occasionally been, one of the cases outlined will show. Lastly, I have always insisted on perfect ventilation of the bedroom by a window opened at the top, so as to ensure fresh and pure air to diphtheritic sufferers.

I now append outlines of a few cases.

Miss A——, aged about twenty-one, sent for me June 25th, 1872, having for three days felt very ill, shivering, aching all over the body; had headache, and for the last two days she had kept her bed with, as she expressed it, a very bad sore-throat. She had used the permanganate gargle, which a former patient had recommended. I saw her at 2 P.M. In addition to what I have said, she could scarce raise or turn her head to the window for my inspection of the throat, and she could not raise herself in bed without feeling very faint. Both tonsils, especially the left, covered with ragged dirty-whitish patches. Pulse 118, very small and compressible; bowels opened; skin dry, 103·8°; countenance oppressed, and very dusky; her tongue was brown from the use of the gargle. In addition to the gargle, I ordered half an ounce of peracetate mixture every two hours; wine and soup. On June 25th, at 9 P.M., the temperature was 101·4°; pulse 106. On the 26th, at 8 A.M., the temperature had fallen to 99·6°, and the pulse to 94. There had been profuse perspiration in the latter part of the night. The heat of the skin never returned in this case, and though she was very weak, the throat was quite clear from sloughs by the fourth day (June 29th), and she made a perfect though tedious recovery. She had taken eight ounces of the mixture in the first eighteen hours. There was never any albumen found when I examined the urine. In the lodgings where this young lady resided there was a very foul smell from the drain in the back kitchen.

A girl, aged about thirteen, slept over a stable. In the corner of her room was a sink, which communicated without a trap with the main drain. At times this smelt exceedingly bad. On June 1st, 1872, I was called to see her. She had all the usual symptoms, and her throat, tonsils, uvula, and pharynx, were all covered, except one deep-red patch, as large as the point of the little finger, on the pharynx. Pulse 114; temperature 102·8°. Ordered hourly doses of the mixture, with the gargle as frequently, and to have hourly doses of wine and beef-tea in small quantity. After two days, the exudation began to curl up at the edges, and she gradually improved until, on the 8th, the throat was free from any speck. Her convalescence was slow, as she frequently suffered from fainting fits, which, I was told, lasted

as long as an hour or more. She did not lose these faints until six weeks after the invasion of the disease. I think that this was the most severe case of diphtheria uncomplicated that I have seen.

In one other case the exudation was not absent from the throat until seven days and a half had elapsed. This was in a lady aged forty-five, and it was followed by paralysis of the muscles of the throat and weakness of the muscles of the limbs, which did not disappear for six months.

Of the next case, that of a girl aged seven years, I give only a bare outline, as it extended over three months and a half. In October, 1873, she had an attack of measles, from which she was scarcely convalescent when her sister suffered from scarlatina in a severe form. She also took the infection, and the eruption in her case rather presented the appearance of rötheln, but it was evidently the same disease from which two brothers and her sister had suffered, and in an aggravated form, and to be succeeded, before she left her bed, by diphtheria, which at once, on Nov. 2nd, covered tonsils and the whole of the visible front of the throat. She had all the signs and symptoms of the worst form, and the glands of her neck were all much swollen, so that she could scarcely swallow. Her temperature was high, though I cannot find my notes on the point; pulse 120, very weak. She could only take the mixture five or six times a day, and could but wash the mouth with the gargle. She could not take food, so about the 3rd or 4th November I ordered enemata of Liebig's raw soup mixed with an equal quantity of port wine, to be given in two-ounce doses (of the mixed liquids) every hour. The diphtheria extended at last to the upper part of the larynx, and produced a suffocative cough. For eighteen or nineteen days this treatment was continued; as much nourishment, with at times a little champagne or brandy-and-water, as she could swallow, was given. Her mouth was washed out frequently, and for some days she coughed up stringy membrane, which was drawn out of the mouth by her mother. I examined the urine frequently; albumen was never found. For these days nearly a bottle of port wine a day was given by enema (six bottles a week), and only on one occasion was the small two-ounce injection returned, and this was apparently caused by the addition of a small quantity of aromatic spirit of ammonia, which the rectum would not tolerate. During the whole time that this rectal nutrition was carried on, there was usually one formed motion in the twenty-four hours. Owing to her emaciation, she had, after a week's illness, been placed on a water-bed. The laryngeal diphtheria had scarce disappeared when she was attacked with severe articular rheumatism, and it was ten weeks before she left her bed, with contracted lower extremities. However, galvanism and friction gradually restored the use of her limbs. After she was well, she suffered from what her mother called nervousness for nearly two years.

In 1874, in October, November, and December, I treated fourteen or fifteen slighter cases of diphtheria, in which all the throat mischief seemed at once subdued (i. e., in one or two days); but I then noticed for the first time how, in early convalescence, assuming the erect posture caused the pulse at once to spring from 64 to 72, when sitting, to 115, and in one case 130, when standing. When I first observed this, I thought I must have made a mistake, and I repeated the observations with the same results.

I instance one more case. J——, a boy aged fourteen, was on Feb. 5th, 1879, convalescent, and nearly well except for a slight throat cough from an attack of influenza. His attendant then observed that he was very hot, had a sore-throat, headache, foul breath, and that he was very weak and languid. The bowels were constipated, and a dose of aperient medicine was given. On Feb. 6th I saw him. The same symptoms were all present, and he had diphtheritic patches on each tonsil, that on the left being largest. All around the fauces was a dusky deep redness. Great headache and giddiness, so that he could scarce stand for one moment without support. Bowels not opened. Temperature 103·3°; pulse 116. Ordered a dose of castor oil, the ordinary mixture and gargle, and soup and wine. On Feb. 6th, the bowels having been freely opened, the temperature was 104·3°; pulse 108. The patient continued very restless and hot till 4 A.M. on the 7th, when perspiration set in, and he slept till seven o'clock quietly. Bowels still purged. Temperature 100·3°; pulse 94. Patches in throat clearing off at edges. He got better towards evening, and the dusky hue had disappeared. Temperature 100·4°; pulse 94. On the 8th the temperature had fallen to 97·8°, and the pulse to 58. Bowels still irritable. Patches nearly gone. To have bismuth with small doses of morphia before meals. On the 9th his appetite had returned. On the 10th the pulse was 74; he had good strength, and felt nearly well. On the 18th well, but still weak.

I have not traced the treatment beyond the stage of exudation, as then all cases, I believe, require the general treatment applicable to the prominent symptoms and the particular state of each patient.

I need scarcely say that with such cases as I have mentioned I place much dependence on this combination in the treatment of diphtheria. I could mention many more similar cases. The steel mixture has not the unpleasant taste of a mere dilution of tincture of perchloride of iron, and young patients do not object to it. The original reason of the combination was to render it less nauseous. I have also found it as effectual certainly, nay, I think, more so, in treating erysipelas than the simple mixture.

I have examined for albumen in a very large number of cases, and have never found any. It may be that my cases have usually come under treatment early, or, perhaps, as I believe, that the steel, freely administered, does away with tendency to congestion of kidney. There are other points I might notice, but forbear, owing to the length of these remarks.

Egham-hill.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

SEAMEN'S HOSPITAL, GREENWICH.

BURSAL TUMOUR IN POPLITEAL REGION.

(Under the care of Mr. JOHNSON SMITH.)

THE following record, for which we are indebted to Mr. Hugh P. Dunn, house-surgeon, besides its clinical interest, is of value as setting forth the advantages of the application of Esmarch's elastic bandage in difficult operations about the popliteal space.

Andrew N——, ship's steward, aged sixty-three, was admitted on October 28th, 1878. For some months he had suffered slightly from pain and stiffness in the right knee, and five weeks before admission he had noticed for the first time a prominent swelling at the back of the joint. His general health had nearly always been good, and before this he had never suffered from pain or swelling in any of his joints.

At the time of admission, the right knee was painful and slightly swollen, and the patient experienced some difficulty in walking. A prominent oval tumour occupied the inner half of the popliteal space, but it was more prominent in the lower half. It was very movable from side to side, and felt like a distended cyst with a thin wall. The skin, which seemed to be almost in contact with the superficial surface of the tumour, was pale and healthy. No pulsation could be felt in the tumour. When it was manipulated or compressed the patient complained of nothing more than a sudden sensation of fulness in the knee.

At first the patient was kept at rest in bed, and iodine liniment was applied to the skin over the tumour. Early in November the swelling was punctured with a very small hollow needle, and a drachm of pale, opalescent fluid drawn off into a hypodermic syringe. Before the removal of the needle twenty minims of tincture of iodine were injected into the sac. On Nov. 22nd five ounces of similar fluid were drawn off, and twenty minims of tincture of iodine were again injected. This operation was repeated four times in the course of the month, with no good result. Very soon after each evacuation and injection the tumour regained its former size. No irritation seemed to have been set up, and the skin remained free from œdema and congestion.

On Dec. 4th, after the patient had been placed under the influence of ether and the right lower limb had been rendered bloodless through the application of Esmarch's elastic bandage, a long incision was made from above downwards along the inner portion of the popliteal space and over the most prominent portion of the swelling. On dissection of the stretched skin and of the subjacent soft parts, the tumour was exposed. This evidently consisted in an enlarged bursa, and presented a large oval sac containing fluid, and with a very thin and tense wall. The deep surface of the sac was in contact with the superficial surface of the inner head of the gastrocnemius muscle, and was connected with it by very loose and fine connective tissue; at its upper extremity it was continuous with a long and thick stalk which passed deeply down behind the inner tendon of the gastrocnemius and towards the joint. The lower extremity of the tumour was free and rounded. As the sac was being dissected away from the surface of the muscle it was accidentally ruptured and exit given to about four ounces of turbid fluid containing flakes of soft and pale-yellowish material. The collapsed walls were then cut away, together with as much of the pedicle as could be reached without any division of the inner head of the gastrocnemius. The operation was performed under antiseptic conditions, and the wound having been drained by horsehair, was covered by gauze &c. The limb was then placed on a McIntyre splint.

No disturbance of general health resulted from this operation. During the first five days after the operation the morning temperature was about 99° and the evening temperature at or below 100°. During the second week the temperature remained quite normal (98·4° every morning, and between 98·6° and 99·2° in the evening), although on the tenth and eleventh days there was considerable swelling of the knee, evidently due to intra-articular liquid effusion. This swelling was quite painless and rapidly and completely subsided in the course of the third week. The wound, which was dressed every fourth day, presented a very healthy appearance, but healed slowly, owing to separation of the flaps of skin and consequent formation of a wide granulating surface. At the end of January the patient was allowed to get up and walk. At first he was very lame from stiffness of the right knee, due probably to long confinement of the limb on a splint. On March 3rd, when the man was discharged as cured, he was able to move the right leg to almost the full extent, and the knee-joint was quite free from tenderness and swelling.

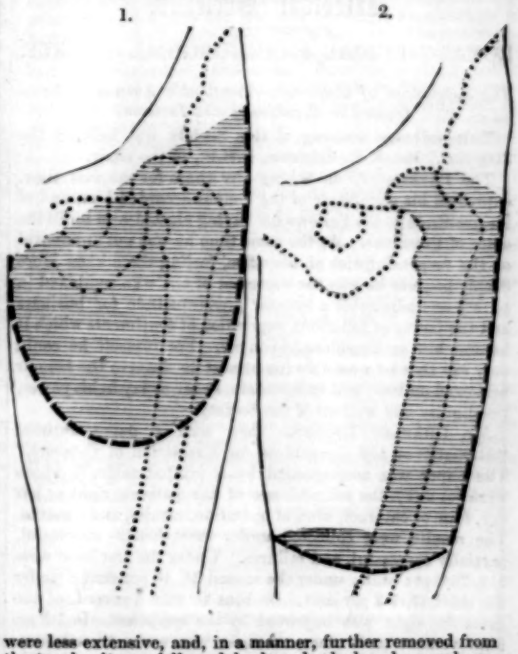
QUEEN'S HOSPITAL, BIRMINGHAM.

AMPUTATION AT THE HIP-JOINT BY A MODIFIED METHOD; USE OF THE CONSTANTLY MOIST ANTISEPTIC SPONGE-DRESSING; IMMEDIATE UNION; REMARKS.

(Under the care of Mr. FURNEAUX JORDAN.)

A YOUTH of sixteen years had had acute and extensive periostitis of the left femur. Several attempts had been made at various times to remove the dead bone, but the results had not been satisfactory. A few sinuses had refused to close, the limb remained useless, the hip-joint was involved (the thigh was quite immovable, and no tendons could be made tense under anæsthesia), and the general health was reduced to the lowest ebb. It was clear the patient left to himself had not long to live. After much consideration it was deemed desirable to amputate at the hip-joint, and to use every precaution against shock and hæmorrhage. A tourniquet was put over the external iliac artery, the limb having been exsanguined as completely as possible by Esmarch's elastic bandage and by position. A straight incision was made, and the trochanters and upper part of the shaft were freed from their muscular attachments, after which the capsule was opened, and some early, but unmistakable, bony union was broken through. Next the shaft was cleared downwards from all its attachments (which are here mostly loose and cellular) for a considerable distance, and then a few free sawing movements, with a long-bladed knife, through the thigh from which the bone had been removed, ended the operation. The integuments were simply drawn upwards, and the soft parts were cut straight through. No bone being left, the muscles quickly retracted, and were easily covered by the skin. Very little blood was lost. The larger trunks were tied with catgut. It was so important to save every drop of blood, that some oozing between the acetabulum and the gluteal region was instantly checked by putting a sponge, soaked in terebene, on the parts, and leaving it within the wound. Adjustment was effected by deep silver sutures. The stump was then dressed by two large sponges (subsequently kept moist with terebene and water), firmly and evenly held in place by broad long strips of plaster, one strip being so carried over the opposite shoulder that the two ends overlapped the stump. The improvement was so sudden and marked that the next day he said he was "very well." There had been neither shock nor hæmorrhage. The "interior" sponge was left for three days. When the dressing was undone the whole stump had united, even over the sponge, the united parts requiring to be partially broken through for its removal. The later steps of progress were as favourable as the earlier.

Remarks.—Mr. Furneaux Jordan said that the principle of the operation which he had done now, and on previous occasions, might be thus described:—First enucleate the bone, then cut through the limb at any desired spot—the middle of the thigh, or below, or even near the knee. Compared with the ordinary operation of two large flaps (see first diagram), the wound was less severe, the cut surfaces



were less extensive, and, in a manner, further removed from the trunk; it was followed by less shock, less hæmorrhage, less opportunity for septic infection. The vessels were more easily dealt with. The thigh might be simply cut through with a circular sweep or a few free sawing movements. The boneless thigh should be firmly held, and somewhat flattened if cut across. The muscles may be cut on the same level as the skin; the bone being absent, they retract so strongly that the skin readily covers them, its vitality is less endangered, and a great cellular plane is not opened. A glance at the diagrams will show that the bulk of the soft parts of the thigh, especially near the pelvis, lies at the inner side of the femur. Why put a knife through these parts? It is better to enucleate the femur where it is most thinly covered, and cut across the limb where it is smaller and further removed from the trunk. In removing the thigh very low down, the area of the wound is no doubt increased, but even then it would be a much less dangerous wound in character and locality. The operation was of course more suitable for those cases in which the soft parts could be freely left than for malignant and other exceptional cases. The surgeon may, if he choose, make the circular sweep before the shaft of the bone is turned out, if precaution against hæmorrhage have been very complete. There ought to be no hurry; the patient is in a deep sleep, no large vessels are near, and the

femur may be patiently turned out of a bed that need neither be scored nor stabbed. If the thigh were to remain a soft, pendulous mass, it would be a small price to pay for greater safety, but it is a remarkable circumstance that the muscles do not rest until the longest thigh has become a short one. In hip-disease, with much acetabular mischief, the wound gives safe access and free drainage for any length of time. The principle of the operation might be adopted in amputation below the trochanters (a chain-saw being used), and indeed in amputations in other localities. The cut surfaces being moistened with terebene, the large sponges were kept constantly moist with the same antiseptic liquid. These kept up deep adjustment, gentle elastic pressure, cleanliness, antisepticity, and rest. When the sponges were removed the stump was as clean as a newly-washed face. It seems a paradox, perhaps, but the moist antiseptic sponge is constantly washing and cleaning, at the same time that it is constantly maintaining perfect rest and immobility. The second diagram suggests the principle of the operation—not the immediately ensuing retracted state.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

The Extraction of Cataract.—Traumatic Abscess of Brain treated by Trephining and Incision.

THE ordinary meeting of this Society was held on the 11th inst., Mr. J. E. Erichsen, F.R.S., in the chair.

The PRESIDENT, on taking the chair for the first time, expressed his deep sense of the honour accorded him, and of his gratitude to the Fellows for having elected him to fill the office of President. At the same time he was not unmindful of the responsibilities of his office, feeling them even more deeply because he was the successor of one who combined in so rare and admirable a manner great aptitude for business and the power of felicitous expression of sentiments which it became him as President to convey. For himself he could only say that he would do his utmost to deserve the honour bestowed on him, and to maintain, so far as lay in his power, the dignity and welfare of the Society.

Mr. CHARLES HIGGENS then read a paper entitled "Remarks on 150 Operations for Extraction of Cataract." The paper was accompanied by a printed table, in which were set down the sex and age of the patient, right or left eye, form of cataract, kind of operation, results, and remarks. The results were collected under three heads—successful, partially successful, and failures. Under the first head were 115, 76·6 per cent.; under the second 24, 16 per cent.; under the third 11, 7·3 per cent. So that in 92·6 per cent. of the cases the sight was improved by the operation. In 7·3 no improvement took place, or sight was worse than before. Three methods of operating were described—extraction by small flap, by linear section, by oblique corneal section. 104 cataracts were extracted by the first method, 25 by the second, and 21 by the third. The advantages and disadvantages of the various methods were briefly alluded to. Iridectomy at the time of extraction, or as a preliminary some time previously, was strongly recommended. The relative advantages of upward and downward section were mentioned. The after-treatment was given. — Mr. MACNAMARA said that the prognosis of cases of cataract operation was favourable in proportion to the dilatability of the pupil by atropine. He had never placed much reliance upon iridectomy in cataract extraction, but his great aim was to remove the *entire* lens, making a corneal section of just sufficient size to admit of this. If any fragments of the lens are left behind they set up irritation. The disadvantage of iridectomy lay chiefly in the fact that it admitted too much light into the eye, so that vision for distant objects became blurred, whilst the most successful cases he had seen had been cases of the old flap extraction and central pupil. He had lately seen a lady in whom thirty years ago Mr. Guthrie had removed cataract from both eyes; she has perfect vision. Mr. Higgens' statistics were of value, and would advance this branch of surgery—different from figures lately published by an eminent continental oculist, of 230 cases of cataract and no failures! It is notorious how figures can be misread.—Mr. HULKE commented on the number of cases in the table of young persons, a few even at three and five years, and many under twenty years. He would like to know the reason why the author had departed from the generally accepted practice of treating such cases, where the lens is soft, by some of the various methods of solution, assisted by suction. — Mr. SPENCER WATSON referred to a method, introduced by a continental surgeon, whereby the capsule is lacerated before the corneal section is made. In lacerating the capsule after such section, there is greater risk of displacing the lens into the vitreous, or of causing prolapse of the vitreous. He had performed the new method some twenty-four times, and with good result; and in some cases he had found it well to perform a preliminary iridectomy. He thought the upward section of the cornea often better than the downward. It was very important to use as few instruments as possible, and to avoid the scoop.—Mr. HIGGENS, in reply, said that removal of the whole lens was more easily effected with a small iridectomy than without. The old flap section, in favourable cases, was very good; no doubt it was so successful in past times because no cataracts were removed until they were "ripe." He fully admitted that several of his patients were young, and that his operations were often experimental. Needle-operations were tedious and dangerous.

The next paper was on a Case of Recovery after Evacuation of a Traumatic Abscess in the Brain by Trephining and Incision, by Mr. J. W. HULKE. An errand-boy, striking his forehead against a fence, grazed it, and was momentarily stunned. He continued to work for seven weeks, during which time he had more or less pain in forehead; then retching and hemiplegia supervened. The frontal bone was trephined at the seat of injury; a small fissure was recognised in its outer table; the dura mater seemed healthy. An aspirator trocar being pushed into the brain, pus rose into the syringe. The abscess was opened through the membranes with a knife, and in all about three drachms of pus let out. The patient recovered, but lost the sight of both eyes by optic neuritis. In conclusion, Mr. Hulke referred to the value of hemiplegia, as significant of disease in the brain rather than of arachnitis.—Mr. BRYANT congratulated Mr. Hulke upon his diagnosis and courage in puncturing the dura mater and the brain. The case, from the localised character of the injury, was clearly one most favourable for operative interference. In diffused injuries the results of operation are poor, but here symptoms of suppuration within the brain followed on local injury. The hemiplegia suggesting cerebral lesion, Mr. Hulke did well to puncture the brain, although the dura mater itself showed no change. The success of the case bore out the wisdom of the practice, and was most encouraging.—Mr. HOLMES related a case showing the extreme difficulty in the diagnosis of these cases. A man was admitted into hospital about a year after having struck his forehead on the right side against a barge in driving. Some time after a swelling occurred here, suppuration, and exposure of bare bone. Later he had several fits, and in one of them an attack of left hemiplegia, which was very complete, especially in the leg. Mr. Holmes removed the piece of necrosed outer table. At first he improved, but then his paralysis increased, his bladder became paralysed, and he had cystitis; so that Mr. Holmes was much tempted to trephine. But the man had been the subject of syphilis, and he has since gradually improved. The long interval between the blow and the brain symptoms was enough probably to put aside the traumatic cause, but the case showed what great care should be taken to avoid numerous sources of fallacy. He agreed with Mr. Hulke that the occurrence of paralysis some time after an injury was a sign of deep-seated cerebral lesion rather than of superficial inflammation. — Mr. BARWELL, congratulating Mr. Hulke on his success, boldness, and diagnosis, said that eighteen months ago he saw, in consultation, a gentleman who had received a blow on the head (to the left of vertex) seven weeks before. The wound healed, and no further symptoms appeared for five weeks, when right hemiplegia occurred. The scar was laid open, and a slight depression found, but nothing further was done. The patient died, and an abscess, the size of a hazel-nut, was found in the cerebrum, beneath the seat of injury. He asked whether Mr. Hulke laid aside the aspirator and took to the knife in his case, because of the former getting plugged, or because of

his preferring a free opening. He had no doubt as to late symptoms after injury being due to abscess rather than meningitis.—Mr. MORRANT BAKER referred to a case recorded by Mr. Holden in St. Bartholomew's Hospital Reports, where a large cerebral abscess was opened, the pus jetting forth with great force. The patient recovered, but subsequently developed further symptoms of brain disease, from which he died.—Mr. HULKE said that the difference in time between the date of injury and of symptoms was the great difference between his case and that of Mr. Holmes, who would, he hoped, bring it before the Society when completed. The aspirator was used for exploration, but the pus being found, he thought it best liberated by a free incision. In a case, some years ago, where there was tonic spasm of the left limbs, he trephined on the right side. Pus spurted forth from the dura mater, which gave way when it was no longer supported. The contracture disappeared, but the patient did not recover, and a considerable abscess was found in the anterior part of the right frontal lobe, making its way up to the dura mater, which it had nearly perforated.

PATHOLOGICAL SOCIETY OF LONDON.

Abscess of Liver.—Piedra.—Lardaceous Disease.

THE ordinary meeting of this Society was held on the 18th inst., Mr. J. Hutchinson, President, in the chair. After the exhibition of specimens by Dr. N. Moore and Mr. M. Morris, the subject of the pathological relations and anatomical distribution of lardaceous disease was opened by Dr. Dickinson in a brief but clear exposition of his views on the subject. Dr. Turner followed with a statistical analysis of cases; and, after a few remarks from Drs. Gairdner and Wilks, the further discussion of the subject was adjourned to the next meeting.

Dr. NORMAN MOORE showed three specimens of Abscess of the Liver. The first was a large abscess between the lobes, associated with dysenteric ulceration of the cæcum and colon. The patient, a female, had suffered from chronic dysentery for five years, and had never been further from London than Ipswich. The second was from a man twenty-one years of age, who for several years had a discharging sinus in the leg from disease of ankle-joint. There was a large, solitary, thick-walled abscess in liver, and Dr. Moore knew of no case on record of so large an hepatic abscess secondary to some local suppuration. The third specimen presented multiple abscesses, with inflammation and thrombosis of the portal vein, the primary source being ulceration of the vermiform appendix, which showed extensive thickening of its whole course.

Mr. MALCOLM MORRIS exhibited microscopical specimens and drawings of the disease of hair known as "Piedra." It is an affection characterised by minute nodes on the hair, and is peculiar to one state in Columbia, where it was originally described in 1874. Mr. Morris had obtained these specimens from Dr. Gutteriez, of Columbia. The affection is always limited to the hair of the head, mostly in women. It begins half an inch from the root of the hair, and consists in a series of one to ten nodes on each hair, the nodes being very hard and gritty. The affected hair has an acid smell. The affection is not contagious, and is supposed to arise from the use of a peculiar mucilaginous oil by the native women. Microscopically the nodes are found to consist of a honeycombed mass of pigmented spore-like bodies, the whole mass arising from one cell which buds radially in all directions. The surface-cells become darker, and the hair-shaft becomes constricted by the fungoid growth. The fungus attains a higher degree of development than other dermatophytes. Mr. Morris expressed his thanks to Mr. Chas. Stewart and Dr. Sangster for assistance in detecting the nature of the fungus and in the microscopical work.—Dr. TILBURY FOX said the affection recently described as "piedra" was a degeneration of the hair, with splitting up of its fibres, and was not the true disease. The specimens shown by Mr. Morris were undoubtedly true piedra, and showed clearly a fungus growing on the hair but not invading it. It was figured in a little work by Dr. Beigel.—Dr. SANGSTER had not seen Dr. Beigel's work. All that Mr. Morris wished was to demonstrate the nature of piedra as originally described.—Dr. HOGGAN confirmed the statement that the specimens shown were not identical with that which had been spoken of as "so-called piedra," nor did he think they were the same as that figured by Beigel. The appearances shown in that book he held to be probably due to the action of soda and glycerine on hair.—The PRESIDENT suggested that this "piedra" was the result of a fungus growing in the special oily material applied to the hair.—Dr. WILKS said the specimens were quite different from the nodosities on hair which he had spoken of many years ago, and to which he had drawn attention in the recent controversy.—Mr. MORRIS said that his object was simply to settle the dispute as to the true nature of the affection "piedra," which had been discussed last year in THE LANCET, and to show that it was a disease peculiar to one locality, and probably accidental, due, as Mr. Hutchinson said, to the employment of special applications to the hair by the natives.

LARDACEOUS DISEASE.

Dr. DICKINSON, in opening the discussion upon Lardaceous Disease, its anatomical distribution and pathological relations, said that he would bear in mind the injunction to be brief, and would keep as closely as he could to the text chosen for him. "Lardaceous disease," using the term authorised by the Pathological Society, had remained undetected until within the last half century; for although it would be difficult to suppose that it had not always accompanied suppurative diseases and syphilis, yet its presence had been overlooked, and it had done its work in secret until its deeds had been gradually brought to light. It consists in a widely-pervading tissue change, occurring first in bloodvessels and determined in its distribution by bloodvessels, the special change being of the nature of an *addition* to the tissues, an infiltration of them by a material foreign to them, and brought to them probably by the blood. Different opinions had been held as to its nature. Rokitansky, among the first to recognise it as an infiltration, regarded it as albuminoid; Meckel, as allied to cholesterin (a view taken also by Dr. Montgomery); Virchow thought it akin to starch or cellulose, as if the human body in its deterioration approached the vegetable in composition, and so styled it "amyloid." But the ultimate analysis of Pavy, Odling, and Wilks proved clearly that it contained nitrogen in proportions equivalent to its presence in proteid substances, thereby showing that it had not an amylaceous composition. These observations were confirmed by other chemists; so that the nitrogenous nature of the material was fully established. Its marked obvious character is its reaction with iodine, which it absorbs so readily as to assume almost the full tint of that substance. Whether the judicious addition of sulphuric acid to this produced a blue tint (Dr. Dickinson had always found it black) mattered little. Some describe a bright blue reaction; but if any such tint be produced, it is probably due to plates of cholesterin, and other fatty products. The iodine test alone is ready and delicate, and, farther, supplies a stepping-stone to another point—the action of alkali upon it. For the addition of a very dilute solution of caustic alkali will remove the iodine, leaving the substance unaltered in structure, and the iodine reaction can be restored by the action of acid. Now fibrin treated with hydrochloric acid may be made to display the iodine reaction, and will lose this property if treated by soda or potash. Hence arises the question, Is this material in any definite manner wanting in alkali, so as to account for its separation in the solid state? It *is* so wanting, and that to a very significant extent—viz., to almost one-half the normal in the liver, and one-third in the spleen, according to Dupré's analysis. There is also a diminution in phosphoric acid, but an increase in chloride of sodium, and likewise a remarkable increase in earthy salts. In this last respect it contrasts with the enlargement of these organs met with in rickets, where they, like the bones, show deficiency in earthy salts. The points of resemblance between the lardaceous material and fibrin deprived of alkali had formed part of the investigation undertaken by Dr. Marcet for the Society. He showed that acid solutions of fibrin and albumen were precipitated by iodine, whilst ordinary albumen was not. So that he would say that lardaceous disease consists in the general deposition of the fibrin of the blood, modified by the loss of alkali or gain of acid. Passing to its mode of production, Dr. Dickinson observed that it had been vaguely attributed to cachexia, to tubercle, syphilis, cancer, rheumatism, and alcoholism;

but it was in the vast majority of cases clearly associated with the two fundamental conditions of—(1) suppuration, or (2) syphilis. Suppuration is the intermediary by which tubercle, cancer, caries, &c., act in producing it, and as in suppuration the blood suffers great loss in corpuscles, and, consequently, in potash, some tangible result on the tissues might well be supposed to ensue. Out of eighty-three cases of lardaceous diseases, seventy-three were in connexion with either suppuration or syphilis, leaving but ten cases which were not ostensibly accounted for by either of these agents. Twenty years ago Dr. G. Budd had given a prominent place to continued suppuration in the production of the waxy liver, or, as he then styled it, the "scrofulous" liver. As to its anatomical distribution, the iodine reaction showed that minute vessels, mostly arterial, were earliest and oftenest affected, and in the kidney the Malpighian capillaries were perhaps affected as soon as any other, the straight arterioles of the cones following next. In the kidney the condition was often succeeded by fibrosis, as if the lardaceous change acted as an irritant to the interstitial tissue. Although often met with in the kidney and not elsewhere, it yet early affects the liver, selecting the terminal branches of the hepatic artery and the cells of the middle zone of each lobule. In the spleen the Malpighian bodies become enlarged, and present the well-known "sago-grain" character. It occurs in the villi and mucous membrane of the small bowel, less often in the stomach, and less in the large bowel. It is frequent in lymphatic glands, and it occurs in the vessels of the skin and pancreas, and Grainger Stewart had found it in the muscular fibres of the uterus. No doubt the list might be extended, for it occurs sometimes in intracranial tumours, especially in syphilitic gummata there and elsewhere, and Dr. Dickinson had met with it in the lining of the aorta, and in one case in fibrinous vegetations on aortic valves, as well as in a fibrinous block on the spleen of the same subject. Then it occasionally infiltrates epithelial cells, and sometimes is very markedly shown to exist in fibrinous casts of the kidney affected with lardaceous disease. Although not proved to exist in the blood, yet it occurred in products shed from the blood during life, as renal casts, and in fibrinous deposits. So that the blood appears to be the origin of the change, and its nature to be something supplied by the blood—arguments in favour of its being an infiltration of the tissues, and not a degeneration. He would ask whether the material were something wholly new, and in all respects different from the normal constituents of the body, or whether it was simply a modification of the fibrin, or of the albumen, or of both, existing in the blood. What is the significance of the deficiency of potash in relation to its production? Does such deficiency stand to the lardaceous material as cause to effect? Then as to its causes: does it ever occur in connexion with bone disease or new growths apart from suppuration or syphilis? Are any more causes to be found for it? Are we still to invoke "cachexia" to explain its occurrence in some cases? Is its greater frequency in the tropics to be explained on other grounds than the greater tendency to profuse suppurations, and the liability of our soldiers and sailors to specific disease? Are any cases spontaneous in origin, or is it invariably but the attendant or follower upon other morbid states? He anticipated more facts to be brought forward in the discussion, and thought the Society would look with interest to the communications yet to be made rather than to his stale recital of a twice-told tale.

The PRESIDENT said that the thanks of the members were due to Dr. Dickinson for the clear and able exposition of the difficult and important subject to which they had just listened.

Dr. TURNER then gave a summary of cases of lardaceous disease compiled from the post-mortem records of the London Hospital. He had collected in all 58 cases, and of these the spleen was the only organ affected in 28, whilst it was unaffected only in 10; the liver was alone lardaceous in 5, and the kidneys in 1. In one case—of syphilis—the testes were lardaceous. Of the 10 cases in which the spleen escaped 3 were cases of malignant disease; 1 caries, and 2 phthisis. Of the total number of 58 cases, the spleen was affected in 48, the liver in 35, the kidney in 15, and the intestine in 10. Forty-two were cases of suppuration, with lardaceous spleen in 38, liver in 22, kidney in 8, and intestine in 9. Ten were cases of syphilis, with waxy spleen in 3, liver in 2, kidney in 4, and intestine in 1. After pointing out the fact that in cancer and syphilis the kidney and liver were more liable than other organs to become lardaceous, and referring to the association of lardaceous change in the kidney with granular disease, Dr. Turner proceeded to give details of the ten cases in which the change was met with unassociated with either suppuration or syphilis. 1. A male, forty-eight, with general dropsy and albuminuria, with cancer of liver, lardaceous spleen. He had a large scar on thigh, but there was no history of syphilis or necrosis. 2. A male, forty-seven, with malignant disease in mediastinum, lungs and liver, and an ulcerating tumour on chest; liver and spleen lardaceous. 3. A male, forty-four, with epithelioma of tongue. Extensive lardaceous change in liver. 4. A male, forty-nine. Cancer of abdominal glands. Lardaceous spleen and kidneys. 5. A male, fifty. Cancer of kidney. Ague twenty-six years previously. Great enlargement of liver from lardaceous disease. 6. A male, forty-eight, with cancer of colon. Slight lardaceous change in liver. In this, as in some of the other cases, there was a history of gonorrhœa, and it was not possible wholly to eliminate syphilis. Dr. Turner suggested that the occurrence of malignant disease might evoke some latent influence of the syphilitic poison; and in favour of the latency of lardaceous disease he cited a case in which a patient seventy-one years of age had suffered from a discharging sinus in connexion with diseased bone in the neighbourhood of the knee for forty years. He died from pyæmia following amputation, and the spleen was found extensively lardaceous. Cases 7 and 8 were associated with heart disease, an association probably accidental; and in one of these there was a history of white swelling of the knee twenty-seven years before admission. Case 9 was that of a female aged twenty-four, a subject of the hæmorrhagic diathesis, who died from severe uterine hæmorrhage. The remains of an old hæmatocele were found in the pelvis, and the viscera were lardaceous. This patient, however, had some old hip disease. In Case 10, of gangrene of feet, there was great probability of syphilitic infection.

Dr. GAIRDNER, of Glasgow, who was invited by the President to make some remarks, said that he had very little to add to what had fallen from Dr. Dickinson. In 1851, at Edinburgh, long before Virchow had published the iodine test, there were several observers of this "waxy" disease in the Physiological Society which then existed. One of these, Dr. Jas. Drummond, author of the article on Sympathetic Nerves in Todd's Cyclopædia, was one who promised much, but who was cut off by early death. Then there was Dr. John Kirk (now H.M. consul at Zanzibar), who was the first to detect the fact that in the kidney the change usually appeared earliest in the Malpighian bodies. There was also Professor Sanders, who particularly observed the change in the spleen. Even then the distinction between this change and all fatty degenerations was clearly recognised. Nor were they misled by Meckel's false generalisation of its being allied to cholesterine. But they looked upon it then as a degeneration rather than an infiltration. Its connexion with syphilis, phthisis, and cancer was known to them, and he (Dr. Gairdner) remembered showing that in cancer of the liver the cancer-nodules themselves sometimes underwent the change. From long watching of the subject, especially in connexion with clinical facts, Dr. Gairdner believed that in almost every particular Dr. Dickinson's conclusions were thoroughly justified.

Dr. WILKS, rising in reply to an invitation of the President, said that all observations he had originally made in the matter had long been published, and he could only say that Dr. Dickinson's view might be true, and was theoretically correct; and he had always felt that even were this not the precise explanation, it must be something much like it, for we have in lardaceous disease a new material that must be produced from the blood.

The PRESIDENT remarked that as the treatment of syphilis and of suppurative disease improved the subject might come to possess a declining interest for surgeons. He inquired if it was known to occur in the lower animals.

MEDICAL SOCIETY OF LONDON.

Gout in its relation to Life Assurance.

AT the meeting on the 10th inst., Dr. Cockle, the newly-elected President, delivered a short address. Mr. Pond exhibited a new form of Sphygmograph, which could also be used as a cardiograph.

Dr. SYMES THOMPSON read a paper on Gout in its relation to Life Assurance, his conclusions being based upon an investigation of the cases in which an extra or "invalid" rate was made on account of gout in the Equity and Law Life Assurance Society. The prevalent idea that gout promotes longevity and prevents other diseases was shown to be founded on the observation of a past generation. From a table based on the calculations of an experienced actuary, it was seen that the deaths exceeded "expectancy," this mortality being not limited to early life, but generally distributed through all ages. An extra rating of 5 or 10 per cent. proved quite inadequate, but 25 per cent. (or an addition of nine years at the age of twenty-five, seven years at forty-five, and five years at fifty-five) just met the loss occasioned by the large mortality in this section. Dr. Thompson proceeded to show how closely related to gout are many of the causes of premature death.—Mr. ERASMUS WILSON said the gout of the life offices was the old "podagra." Ten per cent. was at one time considered to be a sufficient excess to charge for a gouty life; now it is well known that that percentage does not cover the risk.—Dr. FOTHERGILL urged the importance of recognising cardiac disease due to the gouty diathesis. Dyspeptic gout is not so serious as are the other forms of the disease, because the dyspeptic patient was obliged to be careful and moderate in his diet. — Mr. W. ADAMS asked whether all cases of gout required the addition of 25 per cent. to make the life office safe in selected cases. Small additions to the age for different diseases were vexatious to the public and unremunerative to the office. Doubtful lives should only be accepted at high rates of increase. — Dr. C. T. WILLIAMS thought the habits of life of individual candidates were not sufficiently considered, and he commented on the difficulty of obtaining accurate and full statements of the previous personal history of the case. For some cases 25 per cent. would be too high a rate. — Dr. ROUTH believed gout to be more prevalent now than in former years, and attributed the increase to greater consumption of meat and cheap bad wines.—Dr. SYMES THOMPSON replied by showing that other forms of gout than gout in the foot were now clearly recognised. A person might abstain for a time from excess in diet &c., but there was no certainty that he would not return to his previous habits.

LIVERPOOL MEDICAL INSTITUTION.

(MICROSCOPICAL SECTION.)

AT the meeting of the Section on Feb. 14th (A. Davidson, M.A., M.D., in the chair) Dr. GLYNN showed a series of sections of the Pons, Medulla, and Cord, taken from a lad who had died from Hydrophobia. The naked-eye appearance of these parts was normal, but the microscope showed very plainly the changes described by Dr. Gowers. There was nothing distinctive in these changes beyond their localisation in special parts, as they were only evidences of congestion or inflammation. In the present instance several small vessels in the medulla were plugged, more veins than arteries. The perivascular spaces were widened, and often filled with leucocytes; and here and there were little collections of free leucocytes, constituting miliary abscesses. The alterations in the medulla were most marked about the floor of the fourth ventricle. The pons seemed to be healthy. In the spinal cord the changes were more marked than anywhere else, but were specially localised in the grey matter of the cervical enlargement, the structure of which was almost entirely represented by leucocytes. — Dr. Glynn also described, and illustrated by sections, the various forms of Cirrhosis of the Liver, specially referring to that variety which is consequent upon obstruction to the bile-ducts, and which has been called insular cirrhosis by Charcot. Dr. Glynn showed drawings of the changes produced in the livers of animals whose bile-ducts had been ligatured. He pointed out that, while the tendency in ordinary cirrhosis was for connective tissue to grow in extensive tracts along the portal canals, which, uniting with others, surrounded and constricted groups of lobules (annular cirrhosis), in the insular variety it commenced in isolated patches between the lobules, from which the young connective-tissue cells extended in all directions, pushing in between individual liver cells, instead of surrounding and compressing groups of them. Dr. Glynn also spoke of the etiology of cirrhosis; while admitting that alcohol was the common cause, he considered it proved that it was by no means the only one, and mentioned cases of his own in support of this view.

Dr. DAVIDSON showed a section from a case of Cirrhosis and Cancer, in which the whole history had been one of cirrhosis of the liver, but at the post-mortem not only was there the extensive cirrhosis which had been diagnosed, but the liver was at the same time infiltrated with cancer, the cancer being primarily of the liver. Dr. Davidson then made some remarks upon Vascular Dilatation in the Liver, which he illustrated by sections of vascular tumour of and capillary dilatation in the liver. The sections of vascular tumour were particularly interesting, as they were taken from a case in which about twenty occurred in the same liver, some existing in a very early condition as small collections of vascular spaces about the portal canals.

Mr. PAUL showed for Dr. Oxley some specimens of Lymphadenoma; also sections of a variety of kidney sometimes called Smooth Interstitial Nephritis. The interest of the specimen lay in the fact that the increase of tissue between the tubes was not, as is described, a round-celled, connective-tissue growth, but an almost homogeneous fibrillated tissue with a few elongated nuclei, and appeared to consist in an increase in magnitude rather than in number of pre-existing intertubular elements. The kidneys had not suffered from congestion. Mr. Paul also exhibited several sections of Tumours, among the more interesting of which were a specimen of supernumerary breast removed from the axilla of an adult female by Mr. Bickersteth, a spindle-celled sarcoma found accidentally in the small omentum, degenerating into mucoid cysts, a spindle-celled sarcoma of the skin pigmented by long-continued blood extravasation, a round-celled sarcoma removed from the base of the skull by Mr. Harrison, &c.

HEALTH OF LARGE ENGLISH TOWNS IN THE ELEVENTH WEEK OF 1879.

DURING last week 5470 births and 4047 deaths were registered in twenty of the largest English towns. The births exceeded by 288, and the deaths by no less than 677, the average weekly numbers during 1878. The deaths, however, showed a decline of 75 from the exceptionally high number in the previous week; and the annual rate per 1000, which in the four preceding weeks had steadily increased from 25·1 to 29·1, was equal to 28·6. During the eleven weeks ending last Saturday the death-rate in these towns averaged 27·3 per 1000; in the corresponding period of the four years 1875–8 it averaged 29·1, 26·1, 23·4, and 25·2 per 1000 respectively. In the twenty towns last week the lowest rates were 19·8 in Brighton, 22·2 in Wolverhampton, 22·6 in Bristol, 23·1 in Newcastle-upon-Tyne, and 23·3 in Norwich. The rates in the other towns ranged upwards to 30·9 in Oldham, 33·0 in Manchester, 34·1 in Leeds, 34·5 in Leicester, and 36·7 in Nottingham. The 421 deaths referred to the seven principal zymotic diseases in the twenty towns last week showed a further slight increase upon the low numbers returned in the four preceding weeks; they included 163 from whooping-cough, 100 from scarlet fever, 46 from measles, and 45 from fevers, principally enteric. The annual death-rate from these seven diseases averaged 3·0 per 1000 in the twenty towns, and ranged from 0·2 and 0·7 in Bristol and Plymouth to 5·6 and 5·8 in Sheffield and Leicester. Whooping-cough was the most fatal zymotic disease in these towns last week, and showed the greatest prevalence in Sheffield, Leicester, Manchester, and Leeds. The fatal cases of scarlet fever were proportionally most numerous in Oldham, Sunderland, Sheffield, and Liverpool. Four deaths were referred to diphtheria in Manchester. Small-pox caused 17 more deaths in London and its suburban districts, whereas no fatal case was recorded in any of the nineteen provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals slowly but steadily declined from 353 to 303 during the three weeks ending last Saturday; and the new cases of small-pox admitted to these hospitals declined to 43 last week, from 55 and 61 in the two previous weeks.

THE LANCET.

LONDON: SATURDAY, MARCH 22, 1879.

MR. SIMON hit the nail severely on the head the other day, when he said that the Council meeting was ill-timed, that it came two months too late for one purpose and three months too soon for another. When such remarks proceed from a leading member of the Council, it will not be surprising to our readers to be told that for some time the Council seemed to feel at a loss to know what they were come together for. A considerable part of the first day's sitting was spent in casting about for an occupation, when at length the President informed the members that they were met at that particular time because in forty-eight hours the new Government Bill would be in Committee in the House of Lords, and that if the Council wanted to make any suggestions to the Government, no time was to be lost. The unseemliness of spending time in rediscussing a Bill that is substantially the same as that of last year which was so much discussed, and which differs mainly in that it embodies the latest suggestions of the Medical Council, was felt. Mr. SIMON, indeed, tried to save the Council from this error, to which it is so prone, by moving that his Grace the Lord President be informed that the Council, having last year fully submitted their views on all the questions which are involved in his Grace's present Bill, and still adhering to those views, do not in the present state of the Bill think it requisite to submit any new observations. It is but just to the Council to say that nine of its members voted for this motion of Mr. SIMON'S, which was seconded by Dr. ROLLESTON. But it was lost by a majority of two, and the Council thereupon determined to proceed to the consideration of the Lord President's Bill, as far as it differs from the recommendations of the Council. Thereupon the Council took with avidity to the old worn-out work of discussing the questions that are settled — such as the admission of women, the registration of foreigners, &c.; and for two days was occupied in wasting time over them. Mr. SIMON'S remonstrance was very forcible, that if he Council was to meet and discuss amendments on the Bill at every stage of its progress, it might be always meeting; and that, as there were sure to be changes and amendments in each successive stage of the Bill, the Council's discussion of them should have stood over till the Bill was in the House of Commons, and its situation and prospects were more developed. But such a statesmanlike view did not accord with that of the Council, and it distinguished itself as usual by either reaffirming old conclusions, or asserting conclusions at variance with those of last year. We do not know which alternative says least for the character of the Council as an administrative and consultative body. The Council never conveyed to outsiders, or even to many of its own members, a more unfavourable impression than in its proceedings on Tuesday and Wednesday, which were meant, according to Dr. ACLAND, to guide the Committee of the House of Lords. There is only one excuse to be made for it—namely, that its members had been gathered together from the four winds apparently without any very clear idea of what they were to do. The determination of the Government to refer the question of the constitution and working of the Council for investigation by a Committee of the House of Commons takes the wind out of the sails of the Council. The very Executive Committee which had been charged with the task of reporting to the Council was fatally divided as to the duty of the Council "in the altered circumstances of the case." Dr. PITMAN and Sir JAS. PAGET, in a memorandum appended to the report, dissented from the rest of their colleagues, and thought that, in the altered circumstances, it would have been more expedient that the Executive Committee should not at this time have issued the report or any recommendations relating to the constitution of the Council. In the judgment of these gentlemen the Executive Committee should have recommended the Council to wait for the Government inquiry. Dr. QUAIN, again, in a memorandum, expresses his "entire dissent" from almost the only positive suggestion in the report of the Executive Committee—or rather of what remains of it after subtracting himself, Dr. PITMAN, and Sir JAMES PAGET. The surmise of disagreement in the Executive Committee, and of this being the explanation of their delay, thus has some confirmation. But the delay is not all explained by this circumstance. The real fact is that the Medical Council is the most self-complacent body in existence. The report of the Executive Committee, or of the half of that body, shows that in their opinion the Parliament of 1858 fixed on a simply perfect constitution for the Medical Council, which has worked beautifully, and does not admit of improvement. It is true that at the time of our writing the Council itself has not given its sanction to this representation. We will hope for its own credit it will not display such unseemly vanity. But this is the spirit of the report and of the ex-presidents and ex-members whose views are called into requisition, and go to swell the chorus of self-laudation in which the half of the Executive Committee indulge. Next week we shall be better able to judge whether the Council perceives the drift of public and professional opinion, and is disposed to make any admissions of its own defects and faults as a corporation dominated by corporations.

THE *Gazette* of the 11th inst. stripped off remorselessly the thin veneer which the College of Physicians had thought fit to exhibit to the unsophisticated of its members at its meeting on the 18th of February as a solid gain of dignity to the venerable Corporation. It was impossible not to feel an amused sympathy with the adulatory emotion which on that day thrilled the Fellows when they learned that "the Government" had appealed to the College in the danger which threatened England from plague; and the profession, and even the public at large, who had been called upon by the many-voiced press to regard the novel phenomenon, heard with awe that the College was about to be up and doing. Its first throes in the unaccustomed exertion betrayed a pitiable feebleness, suggestive of the extreme injudiciousness of the friends (?) who had inspired the College with the notion that it had some undefined public duty to perform in

prospect of plague; still there was the comforting belief that this was also the notion of the "Government." Although the "Government" had, as was understood, its own peculiar medical advisers, yet, in the grave contingency threatened, what more natural, what more fitting, what more significant of a just conception of the proper concatenation of things, than that they should seek the fountain-head of medical knowledge in Pall-mall. But the College cannot now, sad to say, take even this comfort to itself: first, because, as is now known, the appeal was *touted* for; and, next, because the "Government," in whose rays the College of Physicians has been demonstratively basking during the last two or three weeks, proves to be the Privy Council; and the Privy Council in its relation to the College and the question of plague moves in the matter, not with reference to the public health and medical requirements of the kingdom, but simply with reference to quarantine—not as the Central Public Health Authority, but as the Central Quarantine Authority. In other words, so lost has the College been to its own dignity and the dignity of the profession, so heedless of the reputation of its members who have had a foremost part in promoting public-health reforms, so wanting in courtesy to the public-health medical service of the kingdom, both central and general, that it has eagerly hastened to ally itself with the Quarantine Department of the Government in this matter of plague, and to yield itself as a willing and cheap substitute for the proper official medical advisers of the Government. It has done this careless of the fact that in so doing it tacitly gives a medical sanction to quarantine which cannot be justified, and places itself in opposition to the public-health service of the kingdom, and especially its medical element, upon which the preservation of the kingdom from plague must necessarily depend.

It would be worse than idle to say that the College was asked by the Privy Council merely to nominate two medical men to proceed as a Commission to Russia to investigate the recent outbreak of the disease in the province of Astrakhan, and that it did no more. Does it befit an ancient Corporation to be running flunkey-like to Whitehall upon the merest motion of a Minister without having regard to the professional responsibilities attaching to it, and manifesting a simplicity of apprehension as to the position in which the College stands in the matter which would be ridiculous if it were not humiliating? The College nominated, it is true, two gentlemen, to whom no reasonable objection could be taken, and the nomination was accepted. But so discreditably were the arrangements managed that the Commissioners were hurried from England without any instructions whatever touching their mission as it would affect the public welfare of the kingdom. They have been sent away with instructions which solely concern the wants of the Quarantine Authority and the still more considerable wants of the College of Physicians itself—two bodies, we apprehend, to which the public generally are supremely indifferent. If this has been the work of the Privy Council, it is inexcusable in the College of Physicians to have allowed itself to have been made a cat's-paw, and to have been put in so undignified a position. If the College of Physicians has had any active part in sending the Commission away without reference to the public health requirements of the kingdom, it has derogated from that function of careful regard for the courtesies and amenities of professional life which medicine at large in this kingdom has held to belong in a peculiar way to it, and has prostituted itself to a passing eccentricity of Whitehall.

The rules of professional courtesy which are held to be imperative in the private relations of the profession, we have now to learn, are not held by the College of Physicians to be binding in the public relations. But already the judicial blindness of the College in this business is being made evident, for, as we report elsewhere, but scant courtesy has been shown to it by the Privy Council in respect to the reports to be received from the two Commissioners; and the President has to confess that in consequence the labours of the Plague Committee cannot for the present be pursued. Could a more cruel satire be uttered regarding the body which believes itself called upon to help the "Government" and advise the public in present danger?

The hankering of the College of Physicians after relations with the "Government" is no new thing. It refuses to admit that its position in medical matters which affect the kingdom generally has become materially modified since a public-health medical service was organised, and it chooses to attempt to discredit that service, and become disloyal to the best traditions of medicine, in its endeavours to maintain a meretricious connexion with Whitehall. Can we wonder that, with this example before them, Ministers so commonly elect to treat Medicine from the point of view which must be presented to them by the backstairs movements of which they are made the object, than from a just recognition of its deserts?

IN old times the term employed to designate the office, and characterise the function, of a person having personal charge of the insane was "keeper." The word aptly expressed the idea. The sole or principal object in view when a lunatic was placed under the care of an expert, whether in a public asylum or a private house, was to keep him, by all such measures as might be necessary, out of harm's way, where he could neither harm himself nor inflict injury on others. The purpose and work was the custody of the insane, and those who had him under their surveillance were keepers. Later on in the history of lunacy, when the whip and chain were laid aside and the superstitious fear of persons afflicted with mental disease became so tempered with humanity that stray thoughts began to flit through the minds of philanthropists to the effect that possibly these poor folk might retain or regain some sensitive feeling, the term keeper was abandoned, and replaced by "attendant." The man or woman in charge of the lunatic was by a pleasant fiction supposed to attend upon him or her. This was a wondrous concession in verbiage, but the change of view indicated was scarcely appreciable. The insane were still regarded as tame but treacherous monsters, needing to be kept in perpetual subjection, though, to meet the wishes of a few sentimental reformers, the designation applied to the official in control was one that less openly declared the lunatic a prisoner or wild animal. Insanity was scarcely regarded as a disease, and accordingly no one thought of describing the persons in charge of the insane as nurses.

At this moment, when we write, the prejudice which has

practically excluded mind disease from the class of ordinary maladies, unhappily, retains its hold on the profession and the public. Mental medicine is looked upon as something outside and foreign to the orthodox practice of physic. General practitioners hasten to get rid of a case of disease with mind symptoms, while general physicians and surgeons transfer patients suffering from what is euphemistically called "derangement" to the care of specialists, who are the lineal and traditional representatives of the old class of "madhouse keepers," although the so-called derangement is as much a symptom of physical disease as any other disturbance of function; and in truth constitutes, or would supply, the clue to those more subtle forms of disorderly action which arise in the closest connexion with delicate pathological states of the organism. By throwing out insanity from the category of diseases which it is the duty of the general physician to treat, Medicine, as a science, excludes from view a vast and rich province of study where alone many of the most important and significant symptoms of organic disease can be investigated with a view to the discovery of their causes. There is probably no department of medicine, and few branches of surgery, in respect to which facts and inferences of the most practical kind are not sacrificed by the failure to recognise insanity as an intimate and inseparable part of ordinary disease. This is the professional, and we venture to suggest, the only scientific aspect of a great question—namely, Is not insanity *disease?* If this apparently long settled, but really still open question, were answered in the affirmative, it would follow that the insane should be treated as patients in fact as well as name; and if they were patients it would be not only reasonable, but simply just, to ask that they should be emancipated from the clumsy and ignorant espionage of keepers, pleasantly described as "attendants," and placed under the care of *nurses.*

There is every now and again a complaint that spheres of enterprise for educated persons of both sexes who are anxious, even at some self-sacrifice, to be useful, do not exist, or are not pointed out. We beg that some of the unemployed energy of the upper and upper middle classes may be brought to the aid of lunacy practice. There are volunteer nurses for the sick, but none for the insane; whereas there is no department of usefulness in which so great a result might be gained with some little pains as in the service of medicine among the most pitiable and oftentimes the most acutely suffering of our fellow-creatures. This is a work in which there is room for men as well as women, and wherein mere common-sense kindness, bestowed with devotion, will earn a rich reward. The presence of volunteer "nurses" in asylums would exert a salutary influence on the paid servants of those institutions, and do more to raise the treatment of the insane out of the low groove in which it runs than any legal enactment or other public security. Moreover, with the aid of willing and intelligent agents it would be possible to carry out the principle of "moral treatment," which at the present moment is little more than a name. Asylum "attendants," as a class, are either ignorant and coarse-minded persons, wholly unfit to be trusted with the control of morbid but not unconscious minds, or they are expert in practices for the taming of "mad people" which would not be tolerated at any well-conducted zoological establishment where the tempers and health of valuable wild beasts were concerned and liable to be placed in jeopardy. This is a strong and general, but neither an exaggerated nor a loose, statement. Let any moderately sensible person try to imagine how his mind would be affected if he were placed under the physical and mental control of his own groom or stable-helper. This is the plight to which the insane are reduced, and nothing is more completely unfounded than the notion that they do not feel the degradation, and feel it acutely. In the name of humanity we ask some philanthropic person to commence a movement for the organisation of a corps or society of volunteer nurses for the insane. There should be no difficulty about obtaining the sanction of the Commissioners in Lunacy, and the medical profession would welcome the aid rendered by such agents, both for the benefit of the vast class of lunatics and for the prompt succour and recovery of the many who wander on the confines of insanity, and, if only timely assistance were at hand, might be saved. In the old days there were "retreats" for the mentally distressed drifting into "derangement." Now the only refuge is an asylum, with the penalty of having the brand of lunacy attached to the name, or the luxury (reserved for the wealthy with their presumably more refined natures) of being placed in the custody of menials taken from the ranks of charwomen and labourers, with whom they can have no sort of sympathy, and from whose most forbearing companionship neither consolation nor encouragement can be obtained. We venture to hope the suggestion may receive the attention it deserves, and bear fruit in a judicious and practical organisation.

Annotations.

"Ne quid nimis."

THE PLAGUE AND PORT SANITARY AUTHORITIES.

WITH that modesty characteristic of all great institutions, the Corporation of London, as the sanitary authority of the Port of London, have not thought well to alarm the public mind by proclaiming, either in abstract or in detail, what has been and is being done by them to prepare for any possible importation of plague into this country. It is, of course, well known that, as regards *port* sanitary authorities, the Baltic has been and is still blocked with ice, and all navigation will be suspended for at least another month. But the Black Sea is open, and the attention of the Thames sanitary authorities has, as we are authoritatively informed, been continuously directed to arrivals from those ports nearest to the presumed centre of the epidemic. The Port Sanitary Committee of the Corporation have for some weeks past directed their officers to pick out the vessels that arrive in the river and the docks from these particular ports, and examine them first of all in each and every day's round. This system has been in operation since the earliest reports of the plague reached this country, but the Committee, wisely as we think, decided not to issue any official notices on the subject, so as to alarm the public mind as little as possible. We are informed that some ten days ago Mr. Thomas Beard, the chairman, had an official interview with the President of the Local Government Board, in order to explain to him the arrangements made by the authority to prevent importation by way of the Thames. Mr. Sclater Booth (who was accompanied by Dr. Buchanan, acting medical

officer, and Mr. John Lambert, C.B., secretary to the Board) expressed his complete satisfaction with the arrangements made, and his entire confidence that the Corporation of London, as Sanitary Authority of the Port, would do all that was necessary to meet any emergency. So far so good as to the metropolitan area. But are we equally safe as regards the outports? It seems, as far as we have had an opportunity of judging, that these arrangements are but loosely constituted, and are indeed constructed as yet on no distinct basis at all. The Local Government Board has issued no rules for the guidance of port authorities, but they are left to flounder on as best they may, and we dare to say that the large majority of the chief outports in the kingdom would find themselves badly placed if an epidemic "from foreign" were to burst upon them. It seems to us very much out of order that the Board should have left port authorities in, comparatively speaking, so helpless a condition, because there are many items of sanitary work quite peculiar to port, as distinguished from urban or rural, authorities, and it is the duty of the Board to find skilled aid wherewith to coach up the health officers of the outports in the proper execution of their duty. Unless this is done well and speedily, the next epidemic imported from the Continent or elsewhere will find us ill-prepared, and that to an inexcusable extent.

As we write, the Privy Council have begun by placing in quarantine a small vessel that has just arrived in the Tyne from Russia with a cargo of rags; but the term of detention and isolation is to comprise only as long as may be necessary for the fumigation of the vessel and the disinfection of the cargo and clothing of the crew. It is presumed that, as this step was initiated by the Privy Council, the entire process will be performed by them through the agency of the Customs' authorities, the Port Sanitary Authority not interfering in the matter.

IS THE METROPOLITAN MORTALITY INCREASING?

WITH particular reference to the impurity of the London water-supply, Dr. Lyon Playfair gave notice in the House the other evening that he should, on an early day, call attention to the increasing mortality of the metropolis, especially from zymotic diseases. In the fulness of our sympathy with the object Dr. Playfair has in view, we hope that he may not attempt to prove too much, and therefore set ourselves to consider the reply to the question proposed above. For this purpose let us briefly examine the mortality statistics of the metropolis during the past twenty-eight years. Our census enumerations naturally mark decades, which are convenient for comparative purposes. During the ten years 1851–60 the annual death-rate from all causes in London averaged 23·6 per 1000, whereas in the succeeding decade it rose to 24·3. The death-rate among children aged less than five years rose from 78·0 per 1000 living at those ages in the ten years 1851–60, to 81·6 in the decade 1861–70. Infant mortality, measured by the proportion of deaths under one year to births registered, was successively 155 and 162 per 1000 in the two decades. The annual death-rate from the seven principal zymotic diseases was equal to 4·5 per 1000 in the ten years 1851–60, and rose to 4·9 in the following ten years; likewise the annual death-rate from fever, one of the most sensitive tests of urban sanitary condition, was 0·85 and 0·89 per 1000 in the two decades. Judged, therefore, by five different standards of mortality statistics, it may without hesitation be asserted that the metropolitan mortality in the ten years 1861–70 showed a marked increase upon that which prevailed during the preceding decade 1851–60. It ought to be remembered, however, that eight years of the current decade 1871–80 are completed, and these eight years afford a satisfactory basis for judging whether the increase in the mortality in the metropolis prevailing during the ten years 1861-70 is being maintained. The annual rate of mortality during the eight years 1871-8 did not, however, exceed 22·8 per 1000, against 23·6 and 24·3 in the two preceding decades; the rate among children under five years of age declined from 78·0 and 81·6 to 73·8 per 1000; and infant mortality (under one year) was 159, against 155 and 162 in the two decades 1851–60 and 1861–70. The death-rate from the principal zymotic diseases, which had averaged 4·5 and 4·9 per 1000 in the two preceding decades, declined to 4·0 in the eight years 1871–8, notwithstanding that the period included two small-pox epidemic periods; and the fever death-rate fell from 0·85 and 0·89 to less than half, or 0·41 per 1000. Not only has the mortality in the present decade recovered the ground lost during the ten years 1861–70, but it compares favourably with the mortality statistics of the preceding decade, 1851–60, excepting only the rate of mortality under one year, which, although showing a decline from that which prevailed in the ten years 1861-70, again exceeded the rate in 1851-60. Compared with the decade 1851–60, the general mortality in the past eight years has shown a decline of 3·4 per cent.; under five years the decrease is 5·4 per cent., and the decline in the fatality of the principal zymotic diseases has been equal to 11·1 per cent. If compared with the statistics of the ten years 1861–70, the decline would appear still more marked. We arrive, therefore, at the deliberate conclusion that the recent mortality in the metropolis has sensibly declined, especially the mortality from zymotic diseases. Meanwhile we are fully alive to the demoralising tendency, from a sanitary point of view, of the continued acquiescence in the use of the sewage-polluted Thames as the main source of the metropolitan water-supply; one of the results of which demoralising tendency may be found in the expressed and reiterated opinion of a scientific expert and advocate as to the excellence of the water drawn from the Thames and delivered to their customers by the London water companies.

HUMILIATING TREATMENT OF MEDICAL OFFICERS.

THE harsh sentence passed by Lord Coleridge on Mr. Millerchip, of Coventry, is beginning to bear fruit in a considerable crop of complaints against medical officers, brought by paupers, who, perhaps not unnaturally, enjoy the opportunity of "bearding" the "Poor-law doctor" of the district, and entertained more or less ungraciously by boards of guardians and inspectors under the Local Government Board, who are seldom so happy as when sitting in judgment on some underpaid and overworked official. The medical officers of the York Union have just been exposed to an annoyance of this kind, one of the complainants remarking, as reported in the *Leeds Mercury*, "I see in the paper that Mr. Marshall is about to be brought up before the board, and therefore I may as well make a complaint against Mr. Hood." The medical officer of the Epping Union has been not less offensively arraigned and insulted. The alleged grievance in all these cases has been non-attendance. Mr. Madden, of Epping, very properly refuses to give medical relief without an order. He is thoroughly justified in taking this position, and we hope he will adhere to it. Boards of guardians need to be taught that they must discharge their share of the medical contract, and supply the permanent paupers with "cards," and the casual poor with "orders." Mr. Inspector Royle hazarded a conjecture at Epping that if a family were pauperised by an order the medical officer might be bound to attend other members of the same family besides the one specified in the order. This is an obviously fallacious argument. How can the medical officer know who are members of the family except their

names appear on the order? A moment's reflection would have shown Mr. Courtney Royle that he was in error; but the opportunity of suggesting a construction of the card bearing against a medical man was too attractive to be resisted even in the interests of common sense. We should be glad to see members of the profession displaying a little more spirit than is commonly evinced by men groaning under the humiliating and insulting tyranny of the Poor-law service. There must surely soon come a point at which endurance will be no longer expedient or possible. We venture to think that extremity is not far distant.

THE QUESTION OF MEDICAL LEGISLATION IN PARLIAMENT.

THERE is a hitch in the progress of a good understanding between the Ministry and those who want to make medical legislation complete and thorough. As the Ministry have, very properly, agreed to refer the question of the constitution of the Medical Council to the investigation and consideration of a Select Committee of the House, medical reformers think it most desirable to refer all the principal questions dealt with in the various Bills to the same committee. No less than three amendments are down on Lord George Hamilton's motion for the appointment of a Select Committee. By the rules of the House an opposed motion cannot be brought on after half-past twelve at night. The consequence is that considerable loss of time has occurred. Dr. Lush thought the concession of the Government not to press their Bill in the House of Commons till the Report of the Select Committee was in hand so important that he desisted from further opposition. But Mr. Errington, Dr. O'Leary, and Dr. Cameron are very anxious that all the subjects, including that of Conjoint Schemes, should be reported on. The House of Commons is certainly not in a position to legislate on these subjects without some investigation. The self-satisfaction of the Medical Council will only enhance its wish for an independent inquiry, and it is certainly desirable that this should extend to the question of Conjoint Schemes. There is a universal feeling that we have too many examining bodies, yet each of the Conjoint Schemes contemplates perpetuating all of them and taxing the entrants of the profession heavily and in perpetuity for the maintenance of some bodies whose *raison d'être* has ceased. We hope the Government will at once agree to enlarge the scope of reference to the Committee of the House. We should be sorry to encourage anything like obstructiveness, but there has been a want of thoroughness in this whole matter which may lead to disappointing legislation on a very important subject.

THE HISTOGENESIS OF GIANT-CELLS IN TUBERCULOSIS.

THE origin of giant-cells has been a subject of much difference of opinion, and cannot be said even yet to be satisfactorily determined. Virchow believed they arose chiefly from connective-tissue corpuscles, though he admitted they might proceed from endothelium, epithelial cells, nerve and muscle fibres; and his views, so far as regards their origin from connective-tissue corpuscles, was supported by Wagner, who believed he had been able to follow the transitional stages from the branched cells of the reticulum to ramified and many-nucleated giant-cells. More recently Schüppel maintained they arose in the bloodvessels from protoblasts, which, at first finely granular, non-nucleated, and without well-defined outline, subsequently became more sharply contoured, and developed nuclei in their interior. Such protoblasts, he thought, had their seat, and passed through their metamorphoses, in the small veins, or rarely in the capillaries, and still less frequently in the small arteries. Brodowski agreed with Schüppel in placing their seat of origin in the bloodvessels, but considered that they arose from proper germs, which acquired an anomalous productive activity. Cacciola suggested a totally different view, and regarded the giant-cells as only transverse sections of thrombosed bloodvessels or lymphatics, these nuclei being wander-cells or proliferated endothelial cells. Klebs was of opinion that giant-cells proceeded from coagulated albuminous bodies in the lymphatics. Köster, Hering, and Gaule all attributed the origin of the giant-cells to lymphatic vessels, or to hypertrophy of their epithelial cells. Langhans and Weiss thought they proceeded from the coalescence of granulation or other cells. Ziegler maintained that giant-cells were only white corpuscles, which had escaped from the vessels, and had taken up other cells into their interior, the nuclei of which divided, while their protoplasm was applied to the nutrition of the growing giant-cells. Lübimow, in a paper which has appeared in Virchow's *Archiv* (Band lxxv., Heft i.), from an examination of specimens of tuberculosis, maintains that the giant-cells found in the foci of this disease are independent formations like other cells, and that they originate from a cell by increase of the protoplasm and multiplication of the nuclei. In peritonitis tuberculosa, and tuberculosis of the lymphatic glands, they take origin within the lymphatics, and, indeed, from the proliferating endothelial cells, whilst in tuberculosis of the testis—that is to say, of an organ presenting connective tissue and gland tubes—the cells in question arise from the growth of the epithelial cells on the one hand, and from the connective-tissue corpuscles on the other. Thus he concludes that giant-cells may owe their origin to structures of very different nature.

AFGHANISTAN: QUETTAH COLUMN.

A LETTER from an officer serving with General Stewart's force near Kelat-I-Ghilezie, dated the last week in January, brings us some particulars of their surroundings not devoid of interest. On the march to and beyond Kandahar, the cold at night was intense; for more than a month water inside a tent was frozen nightly; but notwithstanding the great cold, the absence of rain and snow, with consequent dryness of the atmosphere, made the weather healthy and enjoyable. As a rule, rain in considerable quantity is expected soon after Christmas, but this season up to date not a drop had fallen. The marches are long and uninteresting; the whole tract of country from Sukkur to Kandahar, a distance of some 450 miles, is described by our correspondent as a howling wilderness—no trees, no shrubs, hardly a blade of grass, forage very scarce, bad, and expensive. The camels have died literally by thousands from cold, hard work, and starvation. Owing to the difficulties of transport and carriage, supplies had become scarce, and the troops were reduced to half-rations of bread, tea, and sugar; to compensate, the issue of meat was increased half a pound. Fortunately sheep were very plentiful. The rations of the native troops and followers were also reduced. The health of both European and native troops was, however, excellent.

REGISTRATION OF MIDWIVES.

ON Friday, the 14th inst., a deputation from the Obstetrical Society waited upon the Lord President relative to those portions of the Medical Bill of the Government which treat of the examination and registration of midwives. Besides Dr. Lyon Playfair, M.P., and Sir Charles Russell, M.P., Dr. W. Playfair, Dr. Barnes, Dr. Grailly Hewitt, and most of the teachers of midwifery in London were present. Dr. Lyon Playfair introduced the deputation, and Dr. W. S. Playfair explained its object. He said that the Obstetrical Society had been the first to propose, and had for some years occupied itself in, the better

education of midwives, and that last year it had drawn up a scheme for their education and registration, which had been submitted to the Lord President, and had been approved in the main by the General Medical Council. The necessity of legislation on the subject was generally admitted, and the Government had introduced clauses into the Medical Bill with that object. He regretted, however, that this portion of the Bill was permissive, that it was left to any authority or person to submit a scheme to the Medical Council, and that it was left to the discretion of that body again to act or not, as it might think fit. The deputation thought that no result would be obtained unless it were made compulsory upon the Council to draw up, or cause to be drawn up, a scheme for examination and registration of midwives, and he thought such a scheme should be uniform throughout the whole of the kingdom, otherwise one scheme might be in force in one area, another in a second, and none in a third.

The Lord President took the clause proposed by the deputation, and promised to give it consideration.

THE ARMY MEDICAL SERVICE.

THE *Army and Navy Gazette* asserts that the Medical Department of the Army is seventy below its authorised establishment, and that, as a consequence, only forty-eight instead of sixty medical officers have been sent out to the Cape.

The same contemporary also remarks that Sir William Muir has expressed officially his sense of the very excellent arrangements made by Surgeon-Major Oliver as regards the troops lately sent from Cyprus to the Cape, the result being that nearly all the men have disembarked in a very fair state of health—a great contrast to their condition on starting from our newly-acquired possession in the Mediterranean.

Surgeon-Major J. B. Moore has been appointed to the command of the Depôt Army Hospital Corps at Aldershot, and is succeeded as Instructor by Surgeon Farris. The "magazine equipment" of Surgeon-Major Oliver is being fitted out, and the *Army and Navy Gazette* expresses a regret that this officer is not at home to superintend the operation, particularly as it seems that the catastrophe at Isandula might possibly have been avoided if some of the tools comprising this equipment had formed part of the stores on that sad occasion.

PURIFICATION OF THE AIR IN TOWNS.

MR. THOMPSON, in a paper read a few nights since at the Society of Arts "On the Injurious Effects of the Air of Large Towns on Animal and Vegetable Life, and on the Methods proposed for securing Salubrious Air," drew attention to a proposal originally made by Mr. Peter Spence, of Manchester, some years ago, who thought it practicable to build a chimney 600 feet high, 140 feet external diameter at the top, and 100 feet internal diameter at the top, thus forming a huge up-cast shaft, which would provide for the removal of all the smoke generated in Manchester. The same shaft might also be used for the withdrawal and removal of the sewer gases from the town sewers. On a small scale Mr. Spence's scheme is to be applied to the new Law Courts, and we hope when these are opened for public business that all the complaints which the terrible want of ventilation in the present courts calls forth will cease. It is satisfactory to learn that the system acts successfully in the Manchester Assize Courts, where it has been adopted. Mr. Thompson thinks it might be easily extended in towns by simply joining all chimneys in each block of buildings together, and connecting them in one tall stack. The plan certainly seems feasible, and is worthy of trial. The contamination of the air of towns is becoming increasingly injurious to the health of the inhabitants, as the zone of fresh air surrounding them becomes further removed by the extension of their suburbs. We have successfully dealt with many of the problems affecting health injuriously in our cities, and undoubtedly in many respects the conditions of life have during the last twenty years materially improved. Still in two important particulars dwellers in our cities are worse off than they were two generations ago—the water they drink is more polluted, and the air they breathe is becoming increasingly contaminated.

THE RUSSIAN ARMY OF THE SOUTH.

THE Delegate-general of the Russian Red Cross Society with the Army of the South reports that from the 18th of January to the 18th of February the number of sick sent to Russia from Roumelia and Bulgaria was 6548, of whom 79 were officers. The work of transmitting the sick proceeds in an orderly and satisfactory manner. The several stations through which they are passed are provided by the Red Cross Society with all that is requisite for the comfort of the men: pelisses, hot-water bottles, linen and fur coverlets, and other warm articles of clothing; also wine and tea. Three agents of the Society are stationed between Yamboli and Bourgas with sisters of charity and domestics. One of the stations is fixed at the Adrianople railway station, where are collected together, in the first instance, the sick coming from different districts. This station is under the charge of M. Tchernik, who regulates the reception and despatch of the patients, and has at his disposal large stores of articles of warm clothing and medical comforts. Six sisters of charity were ill of typhus, and four were suffering from intermittent fever at the time when this report was made.

TRAPPING.

THERE can be nothing out of place in our calling attention to the very great cruelty inflicted by the use of traps. Game caught in these instruments of torture are subjected to the most hideous pains and mutilations wholly unnecessary. Imagine the agony of an animal with a limb fearfully lacerated by the grip of one of the common gins, struggling for hours to get free, tearing itself afresh with every convulsive effort, bleeding, and without water to quench its thirst, or relief of any kind. This is a matter to which the consideration of the humane might with advantage be directed. It is a grim reflection that all this suffering is inflicted with no sufficient object. The only rational explanation would seem to be that those who set traps of the class in their grounds are unaware of the extent to which these engines maim and agonise the creatures caught in them. It would, in truth, be difficult to exaggerate the suffering they inflict and entail.

ANTISCORBUTIC PREPARATIONS.

EVER since the Merchant Shipping Act of 1867 came into operation, preparations of lime- and lemon-juice have increased and multiplied to an enormous extent. Ingenious adventurers have persuaded the public, with more or less success, that, all antiscorbutic legislation hinging on the system of prevention, all mankind are to some extent subject to scurvy, and that a preventive is necessary for each and every individual. Hence the multiplicity of these preparations, that appear in all their varieties in the windows of gin-palaces, chemists, grocers, &c., and, of course, co-operative stores. Scarcely a week passes without the receipt of some new preparation, the last one of which is called Lime-juice Saline, or Health Salt—a white granulated substance, that effervesces feebly on admixture with water, and is palatable enough as an ordinary drink. We cannot pretend to analyse or criticise in detail all the compositions

of the kind that come before us. It is probable that all are harmless, many comparatively if not absolutely worthless as antiscorbutics, and none at all equal to the well-preserved juice of the lime and lemon. We are informed that the Marine Department of the Board of Trade is inundated with "samples" of such mixtures, each inventor or patentee being desirous that his own preparation should be substituted for lime- and lemon-juice, as ordered by the Act above quoted to be carried in all British merchant vessels; and the Board will do an unwise thing if they yield to any plausible persuasion, and permit, even as an optional or alternative matter, the introduction of any of these mixtures in lieu of the genuine juice.

SUICIDAL WIVES.

CASES in which wives have been driven or impelled to suicide by the sorrows of their matrimonial experience, are becoming numerous. This is a matter of melancholy significance. The worry and anguish which must generally be endured before the suicidal impulse is awakened, represents an amount and intensity of social misery which can scarcely be exaggerated. The facilities for obtaining a divorce have, during the last half century, been greatly increased, and judicial separation is now practically within the reach of all classes, but the evil this relaxation of the once inexorable law of matrimony was meant to redress or mitigate grows at a pace that outruns the remedy. Disappointment or misfortune embitters the lives of no inconsiderable proportion of the married, and the weak in mind are driven to distraction, and fall victims to an insane impulse to self-destruction. The frequency of this occurrence indicates a very terrible state of matters, and one which calls for more than passing notice. The law protecting the property of wives from their husbands would seem to be strong enough to meet the pecuniary needs of the case, but something more than the safeguard of property is requisite. Peace of mind is of greater value than riches. To satisfy the necessities of this social grievance, there may need to be such a change in the law as will afford still greater facilities for complete separation, if not for divorce, or cases of ruined and self-sacrificed life will multiply, and the misery, of which suicide is the extreme expression, will be found to increase. "Can two walk together except they be agreed?" was a question stated as one that had called for no argument in the days of Hosea. The proposition laid down is unanswered and unanswerable now as when it was first propounded.

THE INOCULATION OF RABIES.

THE labours of Renault demonstrated that although rabies is communicated by inoculation of the saliva, it is not communicable by inoculation of the blood or the tissues. The saliva, however, is a mixed liquid, containing, besides the secretion of the salivary glands, buccal mucus and mucus from the air passages. Which of these contains the virus? This question has been investigated by M. Paul Bert, who has communicated the results of his experiments to the Société de Biologie of Paris. The observations were made with the saliva and pulmonary mucus. A rabid dog was killed, and the salivary glands removed, the parotid and the sublingual and submaxillary glands together. They were bruised in a mortar, and the expressed liquid was injected by means of a syringe. The pulmonary mucus was obtained by squeezing the lung. One dog served for a series of experiments of the same kind. All the results, with two exceptions, were negative. The submaxillary and sublingual emulsion was injected into one dog on the 23rd of February, the 28th of March, and the 16th of April. The parotid emulsion was injected into another dog on the 30th of April and the 11th of May, in each case with negative results. The pulmonary mucus was injected into a third on the 28th of March and the 30th of April. This last experiment gave positive results. The dog died of rabies on July 26th, the period of incubation having been three or four months. Into a fourth dog was injected, on March 28th, saliva taken from two rabid dogs and kept some days in alcohol. Into two other dogs an injection was made of saliva—i.e., buccal fluid—from a rabid dog, one with the fluid mixed with human saliva, and passed through Pasteur's plaster filter, the other with some of the residue which remained upon the filter. The former died, unfortunately, from local accidents, six weeks after the first, and six days after the last injection. The latter died with well characterised rabies a month after the injection. It is remarkable that in seven out of fifteen inoculations suppuration followed, causing death in four cases. The unusual frequency of suppuration suggests whether tissues of rabid animals have not a septic property independent of their specific virulence. From these experiments M. Paul Bert infers that it is probable that the saliva alone does not contain the poison of rabies. The experiments with filtered buccal fluid must be repeated. Even the observation with pulmonary mucus needs confirmation, since an anterior infection by a rabid animal was possible. The experiments are thus important as suggestive rather than conclusive. They were carried out with the assistance of a veterinary surgeon, M. Bourrel.

THE ZULU WAR: MEDICAL LOSSES.

IN addition to Surgeon-Major Peter Shepherd, Army Medical Department, who was killed at the battle of Isandula on Jan. 22nd, we regret to record the deaths of Acting Surgeon Brice, 3rd Natal Native Contingent; Civil Surgeon Glanville, and Dresser Chevers, attached to the Colonial forces, all of whom lost their lives on that day. Lieut. J. W. Hall, with one non-commissioned officer, and ten privates, of the Army Hospital Corps, were also amongst the victims of the massacre. The whole of the medical supplies and equipment of the field hospitals of the 3rd column at Isandula and Rorke's Drift fell into the hands of the enemy, and were burnt or destroyed.

PUBLIC HEALTH IN THE ISLE OF MAN.

THE Isle of Man is in the throes of public health legislation, and seems to be much perturbed thereanent. It would appear that a Public Health Bill has been devised for the island, somewhat after the pattern of the Public Health Act, 1875 (England), and that the islanders are startled with the portentous machinery proposed to be provided for so small a kingdom, with the large array of sanitary officials the Bill would create, and especially with the power which would be centred in the Governor in public health matters—a power, it is avowed, which would make local self-government a name and nothing more. It is admitted that the Bill contains many things that the island needs—in other words, that some public health legislation is necessary; and it ought not to be a work of exceptional difficulty to draft a Bill which would simply meet the real wants of the island and no more.

AMERICAN PORK.

SUCH a large quantity of American pork is now imported into this country, and sold at such low prices, that consumers will do wisely to exercise some care in thoroughly cooking the article in order to counteract the possible danger of trichinæ. The results of recent experiments by two qualified microscopists on pork sent to the Chicago market show that about 8 per cent. of the pigs may be considered to be infected with the disease, the number of worms varying from 35,000 to 13,000 to the cubic inch of muscle. One of the experts, Dr. Belfield, is convinced of the innocuousness of small numbers of the worms, and experimented

in corpore vili, himself swallowing twelve live trichinæ. We are glad to learn that this enthusiastic gentleman "has not experienced an unpleasant symptom to date." As regards the relative value of the different substances used for the destruction of the worm, it was found, after several trials, that the most efficacious agent was sulphurous acid. A very little acid mixed with the brine in which the pork is preserved or pickled was sufficient to kill all the trichinæ without damaging the pork.

AN official inquiry has recently been held at Chelmsford by Mr. S. J. Smith, C.E., one of the inspectors of the Local Government Board, on a request made by the sanitary authority for powers to acquire land for sewage utilisation purposes. The downward system of filtration is proposed, and most of the surrounding rural parishes offer to join in the scheme, so that a situation has been chosen for the farm that will permit of the conveyance of the sewage to it by simple gravitation, thus saving much of the cost of pumping. Some evidence was adduced as to the occasional flooding of the land proposed to be taken, but the result of the inquiry appeared favourable to the scheme, as to which Mr. Smith will in due course report to the Local Government Board.

THE fifth annual report of Dr. William Strange, medical officer of health for Worcester, has recently appeared, the only noteworthy feature in which seems to be the large proportion of deaths of children under five years of age, and specially under twelve months. A special report has been compiled by Dr. Strange on this subject, the outcome of which is that the great bulk of these deaths are inexplicable if referred to damp, crowded, and dilapidated streets and houses, to exposure to cold and insufficient clothing, or to contagious diseases. And so the author imputes to ignorance a large proportion of this mortality, as well as to neglect arising from ignorance.

DR. B. W. RICHARDSON, F.R.S., President of the Medical Defence Association, will deliver an address on "Medical Defence," at the rooms of the Medical Society of London, Chandos-street, Cavendish-square, on Wednesday next, at 4.30 P.M. After the address the members of the Association and their friends will dine at the Grosvenor Restaurant, Old Bond-street. Members of the profession who are not members of the Association will be admitted to the President's address on presenting their cards.

DEPUTY-COMMISSARY YOUNG, who sailed for Natal in the *Prætoria*, has been entrusted by the Red Cross Society with a credit of £1000, to be expended in purchasing medical requirements for the sick and wounded at the seat of war. Mr. Young did excellent service under the Red Cross during the Russo-Turkish campaign, and may be relied on to administer the funds placed at his disposal economically and judiciously.

Giornale Internazionale delle Scienze Mediche—such is the title of a new monthly published at Naples, under the editorship of Doctor Antonio Raffaelle, one of the professors in the Neapolitan Medical School. It makes a good start—the first number containing several original and valuable papers, especially in the departments of pathology and State medicine.

DR. THORNE THORNE and Mr. Courtney Boyle visited the port of Wisbech on the 13th, at the instance of the Local Government Board, in order to take evidence in connexion with the request of the Corporation to be constituted the permanent authority of the port, under the Public Health Act, 1875.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

Session 1879.

THE Council met for its twenty-eighth session on Tuesday last, under the presidency of Dr. Acland. All the other members of the Council were present. In opening the session,

The PRESIDENT said: The circumstances under which the Medical Council assembles to-day will not need any lengthened treatment at my hands. Bills for the amendment of the Medical Act are before both Houses of Parliament, and, though not new to you, need your attention. A Government Bill is before the House of Lords, and private Bills are before the House of Commons. Had the present meeting been deferred till the Government Bill had passed the House of Lords, and the subject had been thus completely before the Lower House, where the chief discussion will take place, the Council would have had all the material before it at its meeting. I learnt, however, that some who are strongly opposed to the Government Bill would have thought themselves placed at a disadvantage had the Bill passed the Lords without giving them the opportunity of offering active opposition in the Upper House, after discussion had been held by this Council. The Council has been called to this preliminary meeting. If the result be to materially aid a settlement of medical legislation during this session of Parliament, the Council will, I am sure, gladly bear the inconvenience to which its members have been exposed at this moment. The nature and present position of the several Bills before the two Houses are too well known to need much remark. The Government Bill, introduced by the Lord President, has passed the second reading in the House of Lords, and comes on in Committee on the 20th. It is substantially the Bill that passed the House of Lords last year, with certain amendments, which were to have been then introduced in the House of Commons. It establishes single examining boards in England, Scotland, and Ireland respectively. It aims at preserving the personal relations of the profession to their several institutions, while it takes away from these institutions the power of granting independent or competing licences. It ensures for women the opportunity of obtaining licences to practise, and gives freedom as to the character of their examination. It regulates the relation of foreign and colonial practitioners to this country, meeting thereby in a liberal spirit the questions raised by M. Roger Marvaise, and the Committee of the French Chamber of Deputies on his Bill. It also provides for the general superintendence of women acting as midwives throughout the country, in a manner little onerous to this Council, but still securing a due and healthy relation of the medical profession to a large class of persons who serve under it, and who greatly need supervision. The Government has positively declined to allow these important matters to be mixed up with the much discussed question—viz., what is the best form of executive for regulating the various matters comprised in the enlarging sphere of public work regulated by the Medical Acts? But in a spirit of conciliation, and having due regard to the wishes of certain members of the medical profession, it has undertaken to move that a Select Committee of the House of Commons should, without delay, institute a full inquiry into the constitution of the Medical Council. The Committee will have to consider what will be the best constitution of the body entrusted with administering the Medical Acts, having due regard to the objects of the Acts, the interests of the public, and the education and position of the profession of medicine. Notices of amendments to the Government motion for the appointment of this Committee have been already given, and may, therefore, cause delay in the commencement of the inquiry. Dr. Lush and Mr. Arthur Mills

have each a private Bill. They take a somewhat similar course to that of the Government Bill in many particulars. They each propose a scheme for a new Medical Council. Dr. Lush reduces the number to nineteen, and alters the mode of appointment. He deprives the universities of some of their representatives. He elects others by the votes of all practitioners. Mr. Mills keeps all the existing members, and adds six by general popular election, making the Council thirty in number. Neither of these private Bills attempts the supervision of women who practise as midwives. A third short Bill, Mr. Errington's, requires a double qualification of every registered practitioner, and further proposes to enact that no registered practitioner shall hold any appointment in a public civil service, asylum, public institution, or friendly society, unless he has been passed by an Examining Board, composed of three examiners from England, Ireland, and Scotland respectively. It is certain that, should any of these private Bills proceed to further changes, amendments will be moved with the view of materially changing their character. At your last meeting in October you considered fully the Dentists Act, and gave instructions concerning it. The Act is now in full operation. Up to the end of last year the number registered was about 4725. At present about 4790 are registered. After August of this year no one can be registered without a qualification. According to a report from our Registrar (of whose patience and industry in carrying out the task—now executed once for all—of forming the Dentists' Register, one cannot speak too highly), it would appear that of the number registered 314 were Licentiates in Dentistry of the Royal College of Surgeons of England, and 91 Licentiates in Dentistry of the Royal College of Surgeons in Ireland. Of 4382 who put in claims to be registered on the ground that they were "*bonâ fide* engaged in the practice of dentistry at the date of the passing of the Act," 2493 had declared themselves to have been practising dentistry separately, 21 in conjunction with the practice of medicine, 12 in conjunction with the practice of surgery, 19 in conjunction with the practice of medicine and surgery, and 1837 in conjunction with the practice of pharmacy. Much objection has been taken to the operation of the clause in which the term *bonâ fide* occurs. Some of the objections are certainly beside the mark. They are objections to the Act. If a proper case can be made out, the Act should be amended. Till then the Act has to be administered. English law is very jealous of interference with existing rights. There is a class of persons now practising dentistry which will not, after the 1st of August, be again reckoned among English dentists. What these do now they will, up to that date, continue to do. Hairdressers, perfumers, jewellers, blacksmiths, and others have hitherto exercised the function of tooth-drawing. The law will not hinder them from doing so. If any of them, however, have fraudulently returned themselves to your office as *bonâ fide* in practice, either "separately" or "in conjunction with the practice of medicine, surgery, or pharmacy," it will be your duty to expunge their names from the Register. The Council will refer alleged cases to a committee of five. This committee will ascertain the facts in each case. The committee cannot erase the name, nor, pursuant to a legal opinion recently obtained, can it commence proceedings, till each case has been formally submitted to it by the Council. The erasure must be the act of the Council itself, and this may at first constitute, no doubt, an onerous as well as a serious duty. Notwithstanding these facts, few would question the utility of a Dentists Act, nor the propriety of its being connected with the Medical Council. If one were to take a limited view of the medical profession and of the Medical Council, one might say it were better that they should have nothing to do with dentists, with midwives, with the licensing of women, or even with diplomas in preventive medicine, and that it were better to leave all "specialists" outside the control and beyond the sympathy of the medical corporation or the universities as represented in the General Medical Council. These several interests might, it is true, be erected into separate bodies and corporations, with all the consequences of competition for favour, and of freedom from the influence of the whole profession; but a General Medical Council of Education and Registration hardly deserves the name unless it seeks to maintain a body of persons fit to supply all the just needs of the community in respect of medicine, scientific or practical, preventive or curative. The Medical Council has within the last few years removed many prejudices, and given breadth and security to the opinions entertained on medicine both by the profession and the public. By resolutions dated July 3rd, 1878, the Council resolved on an inquiry into its constitution under the Medical Act of 1858. It is not for me to discuss a subject on which there is so much that may be said, or to balance opinions so opposed as some of those conscientiously held by persons of weight and knowledge. The report which the Council on July 4th directed the Executive Committee to draw up on this subject has been forwarded to the individual members of the Council, and will be formally presented to the Council to-day. It has been found necessary to take legal opinion on several points in the working of the Dentists Act. Changes have been made by the Executive Committee, acting under your instructions, whereby the work of the office is much promoted and greater accuracy secured. Arrangements have been completed for simplifying the accounts and ensuring their correctness. Messrs. Spottiswoode have been appointed publishers to the Council. All educational and other reports or papers may be now obtained by the public from them. For all these details the Council is largely indebted to the untiring energy of the Registrar. Several papers will be laid before you, and one from the Lord President on Foreign Diplomas, demanding an early answer. I venture to conclude with the expression of a desire, in which all can join, that this year may see the Council relieved from the anxiety of administrative and semi-political details, such as it has been my lot to submit to the Council on this and other occasions. It may then steadily discharge the far more congenial duty of considering how to secure the best education for our medical youth, and how to maintain, by the advancing knowledge of an honourable profession, the health and working power of the country. This is not the first time that this hope has been expressed from the chair. May it be the last. Long-continued discussions on legal powers, and protracted political questions of reform, are not always topics grateful to men who chiefly desire freedom to teach and time to learn the complicated scientific and practical questions connected with medicine. There is now a great opportunity for closing these discussions for years to come. We, who are now in the Council, will have reason to rejoice if we are enabled to leave our successors unhampered by these distractions, and free to consider how to promote the efficiency of our medical institutions in their manifold relations to each other and to society.

Mr. SIMON, in rising to propose that the President's address be entered on the Minutes, referred to one or two points in connexion with the programme of business. The Council met under an Act of Parliament for statutory business—to superintend the keeping of the Medical Register, the issue of the Pharmacopœia, and to supervise the standard of medical qualifications. Great discretion was necessary as to the extent to which they went beyond their legal programme. It was not only their duty to economise their own time, but to take care that there was no extravagant expenditure of public money caused by their meetings. On the last occasion thirteen days were spent in discussing the Bill which the Government referred to them, and he submitted that that task ought not to be again entered upon. The speaker was proceeding to refer to certain notices of motion, when——

The PRESIDENT, interposing, said that Mr. Simon was hardly in order in making observations with reference to the programme on a formal motion for the insertion of the President's address on the Minutes.

Dr. HAUGHTON (who seconded the motion) said that Mr. Simon was really wasting more time than he could save, because his remarks would only provoke answers from other members.

Mr. SIMON said he would bow to the ruling of the chair.

The motion was then agreed to.

The Business and Finance Committees were then reappointed.

The PRESIDENT called attention to the inconvenience arising from the fact that the Executive Committee ordinarily ceased to exist at the commencement of the sitting of the Council. To remedy that inconvenience it had been suggested that the ballot for the Executive Committee should take place at once, instead of, as heretofore, at a later period, it being, however, understood that should the Committee require to meet during the sitting of the Council no payment should be made to them.

This suggestion having been [adopted, a ballot was taken, and the following members were elected:—Dr. Pitman, Sir

James Paget, Dr. Humphry, Dr. A. Wood, Dr. A. Smith, and Dr. Quain.

The letter from the Lord President, accompanying a copy of the Medical Bill, was read by the Registrar, and ordered to be inserted in the Minutes.

Mr. SIMON then moved, "That the thanks of the Council be given to the Lord President for having communicated to this Council the Medical Bill before the House of Lords, and that his Grace be informed that the Council having last year fully submitted to him their views on all questions which are involved in his Grace's Bill, and still adhering to those views, do not in the present stage of the Bill think it requisite to submit any new observations." The object of this motion, he said, was to save unnecessary discussion. The present Bill was substantially the same as that which was settled last year, and was almost entirely in accordance with the recommendations of the Council. It would be a waste of time to go on battledoring and shuttlecocking with regard to little amendments at the present time. Later in the season, when the Bill had made progress in the House of Commons, it might be advisable to discuss it, but a detailed discussion was not now advisable. His motion would not prevent any member of the Council, or any body represented on the Council, from making representations to the Government or to Parliament.

Dr. ROLLESTON seconded the motion.

Sir D. CORRIGAN opposed the motion, because it attempted to stifle discussion. The present Bill was not a bit like that of last year.

Dr. A. WOOD also expressed his disapproval of the motion.

Sir W. GULL said he approved of the motion. The present Bill made the Conjoint Scheme imperative, and that was exactly what the majority of the Council had recommended over and over again. The minority were bound by the votes of the majority, and it was not becoming of the Council to discuss session after session a question which had been settled by considerable majorities.

Mr. MACNAMARA moved as an amendment, "That the Council resolve itself into committee for the purpose of considering such portions of the Lord President's Bill as differ from his Grace's Bill of last June."

Dr. HAUGHTON seconded the amendment, and said that the present Bill differed materially from that of last year. For instance, it omitted the provision which secured an equality of standard for the examinations in the three divisions of the kingdom, so that under the present Bill there might be as lively a competition at the three portals as there were amongst the nineteen licensing bodies.

Dr. A. SMITH said that Mr. Simon's motion, if adopted, would prevent any member of the Council pointing out the differences between the present and the previous Bill, and he therefore opposed it.

Sir J. PAGET thought that that was not a fitting time for the discussion of the Bill, but it would have to be discussed at some time or other.

Mr. TURNER wished to know why the Council was called together at the present time if not to give it the opportunity of offering suggestions respecting the Bill before it went into committee.

Dr. HUMPHRY said the present Bill was in accordance with a great many of the resolutions of the Council of last year, and their business was rather to discuss those points in which the Bill differed from the resolutions.

Mr. Macnamara's amendment was carried. On its being put as a substantive motion.

Dr. HUMPHRY moved as an amendment, "That the Council proceed to the consideration of the Lord President's Bill so far as it differs from the recommendations of the Council." He considered that it would be rather absurd for the Council again to go over matters which had been already considered, and which the Lord President had embodied in his Bill.

The amendment was carried, and also as a substantive motion.

The Council then resolved itself into committee to consider the points of difference.

Mr. TURNER, referring to Clause 5 of the Bill, said it seemed to him that if a corporation wished to make inquiries into the character of the person making application, one month was too short a time to obtain such information as they might think desirable, and yet at the end of that time he would be entitled to be put on the Register without having a diploma of the corporation. He therefore proposed that the words "one month" should be altered to "two months."

Dr. QUAIN thought that the clause, as it at present stood, was one of the most objectionable features of the whole Bill. It would afford the greatest possible facilities to quacks to get themselves placed upon the Register. A man might adopt means to lead a corporation to refuse to attach him, and then claim to be put upon the Register.

Dr. A. SMITH wished to ask if the clause applied to the cases of women whom corporations refused to attach?

Sir W. GULL said the corporations had over and over again refused to have anything to do with women, while the Government as distinctly objected to pass a Bill which would not give women licences to practise. The clause was inserted to overcome the difficulty.

Dr. A. SMITH thought that the Government was much to blame for not having the courage to state boldly that the clause was intended to admit women to practise.

Dr. HUMPHRY considered that one month was quite sufficient, because it would be in the power of the examining board to demand certificates of character, just as the corporations did.

After some further conversation on the same subject, Mr. Turner withdrew his motion.

Dr. HAUGHTON moved "that in the opinion of the General Medical Council the addition in the schedule to the Lord President's Bill of a twentieth licence to practise (Lic. M.S.M.), to those issued by the nineteen medical authorities now by law entitled to issue licences to practise, is objectionable; and that the said qualifying licence M.S.M. should not, in itself, be a registrable qualification." "That in the opinion of the General Medical Council the difficulty of placing the names of women on the Medical Register, who have passed the qualifying examination and have been refused the licence to practise by all the medical authorities of the United Kingdom, should be met by a distinct enactment in the Lord President's Bill, and not by the indirect method of constituting a twentieth licence to practise, of which men might avail themselves as well as women." He said that under the pretence of redressing the grievances of women a grievance was about to be inflicted upon men. He believed if his resolutions were passed the Government would feel itself forced to face the question of registering women directly. The proposed provision would only be a temporary one, because he believed that other authorities would follow the example of the College of Physicians in Ireland and the University of London in giving their qualifications to women.

Sir W. GULL suggested that the difficulty might be met by adding to the first part of the clause the words "except in the case of women, who may have direct registration."

Dr. HUMPHRY thought there was no necessity for altering the clause at all. It had been worded with the greatest care and consideration, with a view of guarding the universities, corporations, and also the interests of women. It rested entirely with the universities and corporations whether men or women, or both, should be attached. Unless they refused, the applicant could not be registered in the way proposed. If any exception were made with regard to women, it would be at once objected to by the Government. At present men and women were precisely on the same ground, and both must apply to be attached.

Dr. A. SMITH thought that the most satisfactory course would be to provide a specific clause for the admission of women.

The PRESIDENT said it would be absolutely necessary for the passing of the Bill that women should be admitted without interfering with the rights and interests of the corporations; and it was in order to secure those objects that the clause had been worded in its present tortuous form. The matter had been most carefully considered by the draughtsmen. The Council could hardly suggest specific clauses with advantage, but it could lay down general principles, and Dr. Haughton's proposals, if passed, would draw attention to the subject, and the draughtsmen would then consider whether the clause could be amended accordingly.

Mr. MACNAMARA thought it would be sufficient to pass a resolution that after the word "qualification" in line eight the provisions of the clause should be restricted to the female sex. The great evil was that in the process of time the twentieth qualification might be rendered directly registrable, to the incalculable injury of the corporations and authorities.

Dr. QUAIN said the English board was composed of four universities and three corporations. Of these one corporation and one university were willing to admit women, and the London University said, "We must withdraw from your union examination unless you admit women." That difficulty was met in a very simple way by permitting any one of the licensing bodies to require the Conjoint Board to examine women, who would then get from that body a degree, licence, or diploma, which would entitle them to be placed on the Register. Nothing could be more objectionable than to have separate registers for foreigners and for women, and he thought the objection would be overcome by empowering any authority to require the Conjoint Board to examine them.

Sir J. PAGET said if the corporations could not continue as places granting honours they had better cease to exist at once. They might rightly unite to form a Conjoint Scheme, and he had believed that such a scheme without their co-operation would be altogether worthless. The College which he had the honour to represent had no fear that anyone would claim to be exempt from taking a diploma in order that he might be put upon the Register as a mere licentiate in medicine. He did not believe that any other clause could be framed which would be a wiser and better one, and if any great change were made in it fresh opposition would arise, and the position of the Council with the Government would be exceedingly difficult. Every care had been taken to preserve intact the privileges of corporations, from the conviction that they ministered largely to the welfare of the profession.

Sir W. GULL also considered that if a corporation could not serve some better purpose than merely registering practitioners, it was not worth existing. The object of the Conjoint Scheme was to make the lowest examination better than was now given in any division of the kingdom.

Sir D. CORRIGAN said the result of the Conjoint Scheme would, in his opinion, be to introduce a lower examination. If a man obtained the qualification, he might say that the diplomas or licences of the bodies were not worth the sum he would have to pay for them. He therefore looked upon the clause as the death-knell of the universities and corporations.

Dr. Haughton's motions were then put and negatived.

Mr. SIMON proposed—"To bring under the notice of the draughtsman of the Bill that in Clause 5, where provision is made with regard to cases in which corporations shall refuse or fail to attach bearers of qualifying certificates who seek to be attached to them, it seems to have been overlooked that in certain cases the corporation's refusal may rest on grounds of moral disqualification in the applicant, such as, if he were already on the roll of the corporation, would entitle the corporation to remove him from it; and to suggest to the draughtsman that apparently some qualifying words are wanted, lest persons refused on such grounds as those should *ipso facto* acquire the exceptional privilege as to registration which the clause intends to give to other refused persons."

Dr. ROLLESTON seconded the motion.

Sir W. GULL thought the motion was quite unnecessary, because if anyone got his name registered as a member of a corporation, and was afterwards found to have been guilty of discreditable conduct, the corporation could apply to the Medical Council and get his name removed.

Dr. A. WOOD agreed with the view taken by Sir W. Gull. It would be very difficult, indeed, for any corporation to take the matter up without running the risk of being brought into a court of justice.

Mr. SIMON subsequently withdrew his resolution.

Dr. HAUGHTON proposed, "That in the opinion of the General Medical Council the following amendment should be made in the Lord President's Bill: In Clause 24, line 38, after the word 'doctor,' to insert the words 'either alone, or in conjunction with any other word or words.'" He said this was really an amendment on the Dentists Act, in which there was no provision to restrain a person from calling himself a surgeon-dentist when he was only a dentist, and not a surgeon. He had been requested by a large number of distinguished dental practitioners to bring this amendment before the Council, so as to secure them against the usurpation of their titles.

Dr. PAGET asked if it was intended to prevent the use of the words "surgeon-dentist"?

Mr. SIMON said that the amendment would have that effect.

Dr. PAGET said it was provided in the Dentists Act that the term might be used.

The motion was put, and negatived.

The Council then resumed.

A table showing the results of professional examinations for degrees, diplomas, and licences granted in 1878 by the bodies in Schedule A of the Medical Act, and a table showing the rejections per cent. at final examinations for the years 1875, 1876, 1877, and 1878, were ordered to be entered on the Minutes, and the Council then adjourned.

WEDNESDAY, MARCH 19TH.

The Council reassembled at 2 P.M.

The Minutes of the last meeting were read and confirmed.

The PRESIDENT made a statement as to the present stage of the Government Bill. It would not pass the House of Lords for at least a fortnight, and therefore the Council had ample time for the consideration of details and to propose any amendments which they thought necessary.

The Council then resolved itself into committee for the further consideration of the Medical Act (1858) Amendment Bill, as introduced to the House of Lords by the Lord President, and read a second time on the 11th inst.

Dr. QUAIN said there were two difficult points to deal with, one being the admission of women to the Register, and the other the admission of foreign and colonial practitioners. The difficulty was sought to be got over in the Bill by clauses 5, 7, 8, and 9. The method there proposed he regarded as very objectionable, and notwithstanding that the greatest possible attention had been given to the framing of Clause 5, he believed the result would be most injurious to the various universities and colleges in this country. It would introduce a principle of making something else a qualification than the degrees or diplomas of the several universities and colleges of the country. That was in the highest degree objectionable. The profession of this country, which was not behind that of any other country in the world, owed much to those institutions, and to see them damaged or injured would be regretted even by those who used the hardest words about them. They might be amended, but should not be destroyed. Under Clause 5 however the diplomas would be of no more value than a mere form of admission to a club. If women are to be placed on the Register without diplomas, men could be so likewise. He had not the slightest doubt that within twelve months after the passing of the Act there would be a general demand—"Why have any affiliation at all? What is the necessity for it? Let us be content with the qualifying certificate." Dr. Humphry said yesterday that the character of the persons could be ascertained before passing the Conjoint Board; and it was quite true that they were asked if they went to church, and so on; but what was wanted was to know their professional character, because after a person had passed the Conjoint Board he could not be kept out of the profession, although his conduct in a professional point of view might be thoroughly unworthy. He proposed to meet the difficulty by making as slight a change as possible in the present order of things. As matters stood now, under Russell Gurney's Act it was a perfectly voluntary matter whether any licensing body in the kingdom should give a qualification to a lady. Already three bodies were prepared to admit women. The English Conjoint Scheme bound all the bodies united in it not to give any of their qualifications to a person who had not passed the Conjoint Board. Now, as the Conjoint Boards had not consented to examine women, those authorities who were desirous of examining women would so far be precluded from joining in the board if women were not admitted. By the memorandum which he proposed this difficulty would be met. The body willing to confer diplomas on women might require the Conjoint Board to examine and undertake to give the diploma. It might be said that all the bodies might refuse to do it, but that was not likely, and the objection was further met by the provision that in such a case the Medical Council might require the Conjoint Board to examine them, and then register them as licentiates in medicine and surgery. He therefore proposed "That the following memorandum be submitted to the Lord President with a view of being substituted for Clause 5 in the Medical Act Amendment Bill: 'Any medical authority or authorities that may think fit (or may otherwise be required) to confer a degree, diploma, or licence on a woman, may request the Examination Board to

examine such woman, provided always that, should she pass the examination, she shall not be entitled to *claim* any degree, diploma, or licence other than that which can be conferred by the medical authority or authorities requiring her to be examined. The degree, diploma, or licence thus obtained shall be the qualification by which a woman will be placed on the Register. There shall be a right of appeal to Medical Council, with power to provide an examination, if no medical authority be willing to admit women.'"

Sir JAMES PAGET pointed out that Dr. Quain's recommendation, though applying to England and Ireland, would not apply to Scotland. He could not see the danger in having a qualifying certificate which might give of itself, without any subsequent diploma, the right to women to register. He believed a Conjoint Scheme formed without the concurrence of each of the authorities in the kingdom would be an absolute nullity, and be a means of admitting an inferior class of women to the Register. There was no doubt that no woman desiring to be placed on a level rank with men would ever be content with a qualifying certificate without a diploma associated with some of the authorities of the kingdom.

The motion was put and lost without further discussion.

Dr. QUAIN then proposed his second resolution:—"That, with the consent and approval of the General Medical Council, any of the medical authorities may confer, without examination, on a colonial subject or on a foreigner, a degree, diploma, or licence entitling him to be registered, provided that the medical authority has received such evidence as to character, professional education, and examination as would be deemed sufficient as a qualification for the like degree, diploma, or licence in the case of a person not a colonial subject or a foreigner. There shall be a right of appeal to the Medical Council if no medical authority consent to admit such colonial subject or foreigner." His suggestion was that foreigners or colonial subjects wishing to practise in this country should apply to one of the medical authorities who would provide for such an examination as would justify them in granting the diploma; but that it should not be open to an institution to do that carelessly or indifferently, but each case should be submitted to the approval of the Medical Council. The admission of foreigners as practitioners in this country would therefore be subjected to the double ordeal of the authorities admitting them and also of the Medical Council.

Dr. PETTIGREW seconded the motion.

Mr. TURNER said in the table of amendments to be moved in Committee by the Lord President, there were evidently important amendments on these very clauses, and as the Council had not yet had time to consider them, it might be as well that an opportunity should be given for their consideration.

Copies of the amendments were handed to the Council, and Clause 7 was read as amended.

Dr. QUAIN inquired if by the clause as amended the foreigner was to have all the privileges of an English registered practitioner?

Mr. TURNER.—Yes.

Dr. ROLLESTON supported the resolution. It simply meant to give a double security with regard to foreigners and colonial subjects. There was nothing invidious in such a provision. It was one of those things with regard to which too much care could not be taken. It was possible that the Medical Council was not the fit and proper body to satisfy itself on a number of points which might disqualify a person from being put on the Register, and such a task might be left to the corporations. It was part of the *raison d'être* for the existence of those corporations that they should act as sponsors for people brought into the profession, and no great harm would be done to foreign and colonial practitioners by placing them under the control of the medical authorities.

Dr. ANDREW WOOD supported the motion. Foreign and colonial practitioners had been permitted to enter the profession on easier terms than those educated at home. The resolution would inflict no great hardship, and would afford great security. No hardship was imposed in compelling a foreigner on coming to England to obtain the stamp of one of the authorities. He ought not to be made to pay any considerable fee—that would be a hardship; but there could be no possible objection to his being obliged to submit himself to the consideration of one of the medical authorities, so as to make sure that they were not admitting upon the Register on easy terms men who had no title to be there.

Mr. SIMON said in 1877 the question of these qualifications was referred to a committee. That committee reported, and their report, recommending a particular policy with regard to foreign and colonial diplomas, was accepted by the Council. The policy so agreed upon was communicated to the Government. Last year the whole subject was reconsidered, and as the result this recommendation was arrived at, that where a person who had been *bonâ fide* resident in a British possession showed that he was of good character and held a recognised diploma, he should, upon payment of the registration fee, be entitled without examination to be registered as a colonial practitioner on the Register. On that recommendation the Government had proceeded, and now, when the Bill was submitted to the Council, were they to upset the whole thing and take up an entirely new line of advice, the result of which was to vest this jurisdiction in the medical authority instead of in the Council, and to make the Council the court of appeal in the last resort instead of the Privy Council? Apart from all other objections he believed the Government would not for a moment entertain the notion of making that Council the final court of appeal in a matter of that kind. If the Council kept on changing its advice the result would be that the Government would decline to listen to them at all.

Dr. A. SMITH thought the Council was quite warranted in discussing the question, seeing that amendments had been proposed to the Bill. One most important point in connexion with the admission of foreign and colonial degrees to the British Register was to see that the principle of reciprocity was established between this country and those countries and colonies whose diplomas were to be accepted.

Mr. TEALE said if the authority of the Council was to be real it must be absolute, and it could not be real and genuine if the Council felt that it was simply acting second to the corporate body.

Sir WM. GULL thought the Council would stultify itself by perpetually going back from its former conclusions. Clause 9 stated "the medical diploma or diplomas granted in a British possession or in a foreign country, which are to be deemed such recognised medical diploma or diplomas as are required for the purposes of this Act, shall be such medical diploma or diplomas as may be recognised for the time being by the General Medical Council." That was sufficient protection against any man being registered who came from a bogus corporation or university abroad.

Dr. HUMPHRY said by adopting the resolution the Council would be acting in opposition to the views they had expressed to the Government, and to which the Government had assented in the alteration of the Bill. The modification by the Lord President was simply to bring the Bill into accord with the expressed wishes of the Council. Dr. Quain's resolution would not give a double security for character; it simply substituted one security for another.

Dr. ROLLESTON said it must be with the consent and approval of the General Medical Council, so that there was a double responsibility.

Dr. HUMPHRY asked if the Council would give its assent in each individual case.

Dr. QUAIN said it would.

Mr. TURNER thought Dr. Quain's motion had met with a little more severe criticism than it deserved. By accepting it they were not departing from the liberal policy which had been laid down by the Council last year, but were simply suggesting that there might be another way of getting these people on the Register.

Dr. QUAIN said his resolution was in accordance with the views expressed by the Duke of Richmond, in moving the Bill, that it was most desirable that colonial or foreign practitioners should be affiliated with some corporation or body. He (Dr. Quain) could not see why a foreigner or colonist should be allowed to come on the Register without being brought under the control of some corporation.

The resolution was then agreed to by twelve votes to seven.

A communication from the Lord President of the Council was then read, enclosing copy of the following letter:—

Gowan Park, Cupar-Fife, N.B., March 3rd, 1879.

From Keith Norman MacDonald, President of the Foreign Graduates' Association, to his Grace the Duke of Richmond and Gordon, K.G., Lord President of the Privy Council, Whitehall, London, S.W.

MY LORD DUKE,—I have the honour to crave your Grace's indulgence for addressing this note (which I consider will give less trouble than a petition or request for the reception of a deputation) on behalf of the "Foreign Graduates' Association," to draw your Grace's attention to Clauses V. and VI. of the Bill to amend the Medical Act of 1858, which

your Grace has introduced into the House of Lords, and which stands for a second reading on Tuesday, the 11th instant.

It may not have been represented to your Grace that there are a great many doubly qualified and registered Englishmen practising in this country who have graduated on the Continent of Europe, many of whom are men of considerable scientific attainments, and some of whom have actually practised abroad, though not necessarily for a period of ten years, and who look upon it as a grievance that no provision has been made in the Bill now before the House of Lords for the recognition of their degrees, as *additional qualifications*, to be admitted to the Medical Register under the amended Act.

These gentlemen, as just stated, numbering several hundreds, are doubly qualified, registered and highly respectable practitioners, who have hitherto refrained from pressing their claims, as they fully expected that in any amendment of the Medical Act of 1858, introduced by the Government, their claims to recognition would be considered on the score of their having graduated prior to the passing of the amended Act.

If, therefore, it is not assuming an undue liberty, may it please your Grace to give this subject some consideration when the Bill comes on for its second reading, and before it passes the House of Lords.

I have &c.,

(Signed) K. N. MACDONALD, M.D.,
Exam. F.R.C.P. Edin., L.R.C.P. Lond., &c.
President F.G.A.

Dr. A. WOOD said that at the time when the Medical Act was carried, there was a clause in that Act giving the dispensing power to the Medical Council to put upon the Medical Register any foreign qualifications which might appear to the Council to be worthy of being registered. A considerable number of men applied for registration under these conditions. The whole of those applications were sent to a committee, who went carefully through them and adjudged the cases in which they thought the qualifications had been granted under such conditions as the Council would recognise. It would be a hardship to say that men who were really registered in the Medical Register should not be allowed to add such foreign qualifications as might be considered recognisable by the Medical Council after inquiry. He knew that the foreign graduates had complained for a long time that their qualifications were not registered. It would be in the power of the Council to say which qualifications should be registered and which should not. Of course there would be no difficulty with regard to the qualifications of the University of France, the University of Berlin, or the University of Harvard, and he thought it would be a good thing if provision were made that foreign graduates who were already entitled to be on the Medical Register should have their additional foreign qualifications added to their names.

Sir JAMES PAGET said that in some parts of the Continent a diploma did not permit a person to practise unless he had also passed the *Staats Examen*. Of course it could not be allowed that persons who were not permitted to practise in the country in which they obtained their diplomas should be admitted to the Medical Register in England. He moved "that, with regard to the letter which has been addressed to the Lord President on behalf of the Foreign Graduates' Association, the President be requested to bring under the notice of the Lord President that the subject in question has already been carefully considered by the Council, and that the opinion of the Council, which is adverse to the claim of the Foreign Graduates' Association, is expressed in a report which was submitted to his Grace in the month of May, 1877."

Sir WILLIAM GULL seconded the motion, and said it was a curious fact that the gentleman who signed the letter put "M.D." after his name, but in the Register those letters did not appear.

Mr. MACNAMARA said that was the very thing which was complained of. He considered that when a gentleman had a qualification clearly entitling him to practise in this country, he might be permitted to register a higher qualification obtained in a university with the character of which the Medical Council was familiar.

Dr. HALDANE said he found in the Medical Directory that the gentleman who had signed the letter was M.D. of the University of Erlangen.

Sir James Paget's motion was put and carried.

Considerable discussion followed on the meaning of the word "additional" in Clause 10, Sub-clause 7 of the Bill, and the following resolution was ultimately carried by a large majority:—"That in page 5, line 5, the words 'of any additional diplomas held by a person registered therein which,' be left out, and that these words be substituted: 'of any diploma granted after the making of such order to any person registered therein or holding a qualifying certificate under this Act.'"

Dr. HAUGHTON then referred to the following motion of which he had given notice:—"That in the opinion of the General Medical Council the Lord President's Medical Act Amendment Bill, now before the House of Lords, should be amended by the restoration to it of the preamble[1] to Clause 13 of the Lord President's Bill which passed the House of Lords in 1878 which preamble is omitted without sufficient reason from the Bill of 1879, an omission which, in the opinion of the General Medical Council, endangers the principle of equal fees and equal standard of examination in each of the three divisions of the United Kingdom." He said that some days ago the University of Dublin petitioned the House of Lords through the Lord Chancellor, who happened to be also Chancellor of the University, expressing their opinion that the preamble should take its place in the present Bill. He had called that morning on Lord Courtown, who had charge of the amendments of the University of Dublin to the Lord President's Bill, and he was informed that one of the amendments to be moved by the Lord President would accomplish their object, and have more force than a preamble to a clause. He therefore telegraphed to Trinity College, and was now authorised to withdraw the motion so far as it related to the standard of examination. He was also instructed to facilitate as far as he could the passing of the Lord President's Bill. The University of Dublin was of opinion that it was an excellent Bill, though it required some amendments, which the Council's superior wisdom would supply to the House. The College of Physicians in Ireland understood from the following words in the preamble, "in order that the qualifying certificate may be granted on the like terms in all cases," that the fees paid by the students would be uniform, so as to prevent a monetary competition; but the Lord President's amendment did not provide for equality of fees. This subject, however, was covered by a notice of motion by Mr. Macnamara, and therefore he thought his best course was to entirely withdraw his motion.

Mr. MACNAMARA drew attention to the following motions, of which he had given notice:—(*a*) "Clause 15, page 8, line 8, after 'regulating' insert the words 'the curriculum, the fees to be paid for admission to the examinations and.'" (*b*) "Clause 15, page 8, line 13, after 'Council' insert the words, 'And it shall be the duty of the General Medical Council to see that the examination rules in each part of the United Kingdom are so framed that the qualifying certificate shall, as nearly as possible, be granted on equal terms so far as curriculum, fees to be paid for admission to the examinations, and examinations are concerned.'" He said he was very much in the same position as Dr. Haughton, because the Government had accepted the suggestion to insert the words, "curriculum of study." The College of Surgeons in Ireland entertained an idea that the scheme should be made as perfectly uniform as was practicable, and one of the important points in which they felt there ought to be uniformity was the fees charged for admission to the conjoint examination. The Conjoint Scheme proposed, sanctioned, and adopted by the College of Surgeons of Ireland was almost identical with the English scheme, and proposed that the fees to be charged should be the same as those charged in England. In doing this they made a very great concession to the public. To obtain the double qualification in Dublin at the present moment a gentleman would have to pay twenty-five guineas to the College of Surgeons and fifteen guineas to the College of Physicians, making a total of forty guineas, whereas it was now proposed to reduce the fees to thirty guineas, the same as in England. They believed that a less fee than that would be attended with grave disadvantages. He was rather amused yesterday with the lofty tone in which Sir James Paget spoke of corporations and fees, but the distinguished baronet, who so worthily represented the College of Surgeons in England, would excuse him for reminding him that in the English scheme one-half was to be devoted to the surplus, and of that one-half two-thirds would be taken by the College of Surgeons, so that they were not quite so disinterested as might have been supposed. The College of Surgeons of Ireland also wanted to have a

[1] The omitted preamble is as follows: "Whereas, under the Medical Act, 1858, the General Medical Council has certain duties as regards the superintendence of the examinations to be gone through in order to obtain qualifications for registration from the medical authorities, and it is expedient to give to that Council powers for the performance of the like duties in the case of Medical Boards, in order that the qualifying certificate may be granted on the like terms in all cases. Be it, therefore, enacted as follows."

surplus, but not for unworthy motives. The surplus was devoted to exactly the same purposes as the surplus in the English College of Surgeons. Probably the College of Surgeons in Ireland had one of the best medical libraries in the United Kingdom, and the surplus would be devoted towards supporting the library. It was also well known that the Pathological Museum of the College of Surgeons in Ireland was probably one of the best in the kingdom. It was perfectly clear that the support of such a museum and library was *pro bono publico*, for the public derived decided benefits from them, in an indirect way. Two great elements were already introduced into the Bill, first the curriculum, and secondly the examinations, but he considered that the fees were equally important. He therefore moved the motion of which he had given notice.

Sir W. GULL said he could see no objection to the resolution, provided that one-third of the fees went to the maintenance of some national institution analogous to the Hunterian Museum. If the Government determined that the fee should be the same, the conditions under which those fees were to be dispensed should be the same. It should be clearly understood that the one-third should not pass into the pockets of the examiners.

Mr. MACNAMARA said there was a bye-law in the Irish College, whereby not one sixpence could be devoted to the private use of any of the Fellows; so much so that when on the occasion of their old friend Mr. Hargreaves retiring from the Council, they were anxious to present him with some small testimonial, they found that it was utterly impossible to give one sixpence towards it out of the funds of the College.

Mr. TURNER said the question of the fee was one of very great importance. Every candidate going before the joint board had to pay out of his thirty guineas five guineas towards the museum of the Royal College of Surgeons of England. He was told that the cost of the museum was from £2000 to £2500 a year expenditure. Was there anything either in Ireland or Scotland at all comparable to the museum in national importance, or anything which called for a similar outlay? He was not aware of any. The College of Physicians of Edinburgh had one of the best professional libraries in the country, and the College of Surgeons had an admirable pathological museum, but still one that did not cost very much to keep going. As far, therefore, as Scotland was concerned, there was nothing in connexion with their three compartments which would require so great a proportionate expenditure as was required by the Royal College of Surgeons of England. If that were the case he did not see why there should be so great a fee exacted; and the Council must not tie itself up by a deliberate recommendation to Government that the fee should be equal in the three divisions. Certainly they in Scotland had no right to charge an equal fee to that charged in England, unless as large a proportion of that fee could be applied to public purposes, as it was proposed to apply by the English scheme.

Mr. TEALE asked what was the cost of the double qualification in Edinburgh.

Mr. TURNER said twenty guineas.

Mr. SIMON had no doubt about the desirableness of pressing the uniform curriculum, but he thought it would be reasonable to let the fees find their own level according to the ordinary rules of supply and demand. If the Scotch authorities were able to grant their diploma cheaply, so much the better for the Scotchman. It was not a matter of public interest calling for the attention of the Council. He did not anticipate that there could be any great difference between the divisions of the kingdom, and therefore it was better for the Council to refrain from dealing with a rather difficult subject.

Dr. ANDREW WOOD supported the views put forward by Mr. Simon. He was rather afraid, if the Conjoint Scheme were carried out, that in place of there being a surplus for the Scotch authorities, the contrary would be the case. What he was anxious to say was—the Council might be assured that Scotland would never lower her fees for the base purpose of inducing individuals to go there to obtain their diplomas. Let the Council regulate the curriculum and the examinations, and leave the fees to find their own level.

Dr. AQUILLA SMITH said the sum of thirty guineas was not at all too high, and by fixing it at that rate the Irish Colleges of Surgeons and Physicians would lose 25 per cent. of their present income, while the surplus money would not be more than sufficient for the necessary requirements of the colleges.

On the motion of Sir Dominic Corrigan, the debate was then adjourned.

THURSDAY, MARCH 20TH.

The Council continued to-day the discussion on the Lord President's Bill, and resolved itself into committee for the purpose. The consideration of Mr. Macnamara's motion with reference to fees, &c., was resumed, and after a short discussion it was carried by a large majority. A motion by Dr. Haughton objecting to a portion of Clause 27 of the Lord President's Bill, on the ground that it gave the Medical Council too wide and undefined authority to delegate its powers to other bodies, was, after discussion, rejected. The opinion of Mr. Ouvry was taken as to the meaning of several parts of the Lord President's Bill, and the attention of the Government draughtsman was called to them. The Council then resumed, and on the bringing up of the resolutions passed in committee, Sir James Paget moved the rejection of the first of those resolutions, relating to the admission of colonial subjects and foreigners to practise in this country. After a rather lengthened discussion, the motion for the non-confirmation of the committee's resolution was carried by 11 against 7.

A fuller report of this day's proceedings will appear in our next issue.

REPORT OF THE EXECUTIVE COMMITTEE ON THE CONSTITUTION AND WORKING OF THE GENERAL MEDICAL COUNCIL.

THIS report has been presented to the Council, but at the time of our going to press has not been disposed of. In consequence of the pressure on our space we shall postpone any detailed abstract of it. It is, in truth, a curious document. It is not the report of the Executive Committee, but of about half that body, which consists of six members and the President. The report sets forth that the Council has ransacked the Minutes of the Council and other sources for suggestions. All the former members of the Council have been appealed to for their opinion on the constitution and working of the Council, and their opinions, in the form of letters to the President, are given at length. A valuable and interesting part of the report is a memorandum by the Registrar on constitutions proposed for the Medical Council before the passing of the Medical Act of 1858. Not the least striking feature in the constitutions so described is the fact that in several of the Bills which led up to the Act of 1858 it was stipulated that the Crown members were not to be members of the council or office-bearers in any of the medical colleges or societies.

The report of the Committee (minus the dissentients) treats: 1, of the present constitution of the Council; 2, the working of the Council, under which head are considered the duties assigned to it, and the manner in which they have been fulfilled; 3, the changes (if any) in the constitution of the Council, by which it might be rendered more efficient for the duties which it has or will have to discharge. The sum of the whole investigation, which is simply that of two or three members of the Executive Committee, is that the Committee are not of opinion that any alteration in the present constitution of the Council is necessary to render it more efficient for the duties which it has to discharge. The only approach to a positive suggestion for the better representation of the general body of registered practitioners is that the best way of accomplishing the object would be to increase the Crown nominees by four. But the Committee do not think this course necessary. We have elsewhere referred to the division among the members of the Executive Committee as to this report—a division which divests it of any little value which it might otherwise have possessed. But its self-complacency and the way in which it attributes all arrest of progress to those who have steadily disapproved of the Council and its mode of working are such as to excite rather amusement than admiration.

THE ROYAL COLLEGE OF PHYSICIANS.

A MEETING of the College was held on Thursday, the 13th inst., and adjourned to the 15th, on which occasions important discussions took place relating especially to the Conjoint Examination Scheme for England.

At the Thursday meeting the President explained that the Plague Committee was not in a position to take any further steps in reference to the collection of information relative to the plague, inasmuch as Drs. Colvill and Payne were instructed to report to the Government direct, and their communications would so far be confidential in the first instance.

Dr. Barclay was proposed as the representative of the College on the Committee of Reference.

Dr. West then called attention to the absence from the Conjoint Examination Board of Referees of any one representing midwifery, and he proposed that Dr. Priestley should be elected in place of Dr. Barclay. Dr. West had taken this step without notice to Dr. Priestley, who obtained 13 out of 31 votes from the fellows present.

The report of the Committee of Reference relative to the Conjoint Examining Board for England was then taken into consideration, and it was agreed to take it part by part. The President inviting the fellows to make any criticism upon this section of the report, Drs. Barnes, Playfair, Graily Hewitt, and Priestley severally called attention to the inadequacy of the details of the proposed curriculum of study relating to midwifery and diseases of women, especially in regard to the number of lectures required in midwifery and the time to be compulsorily devoted to the clinical study of women's diseases and to the acquirement of a practical knowledge in the use of instruments. Dr. Playfair reminded the College that it had recently censured the teachers of the various medical schools of London for the deficiency of obstetric knowledge exhibited by candidates for the College licence, and yet the College proposed to still further reduce the present means and sources of instruction.

Dr. Barnes moved an amendment to the particular section of the report under discussion, affirming the need for a fuller attendance on the part of the student upon obstetric subjects.

The President and Dr. Quain explained that the framers of the proposed regulations had in view the desirability of limiting the amount of attendance on mere lectures, so that the student might attend to the more practical courses of instruction, whereupon Drs. Playfair and Graily Hewitt pointed out that a special *practical* and *additional* course was required from the student in regard to other subjects, which were not, so far as regards the requirements of the general practitioner, of greater consequence than obstetrics and diseases of women.

The President now put Dr. Barnes' amendment, which was lost.

It seems that after this the President put to the meeting that the College should agree to Part 1 as it stood, but the bulk of the fellows did not so understand it, for on Dr. Duckworth rising to criticise another section in Part 1 of the report, and the President stating that the College had approved of the whole of Part 1, fellow after fellow arose from different parts of the table to say that they understood the President to have asked the College to approve that part of the report relating to midwifery, to which Dr. Barnes' amendment applied. The fact is that the President was inaudible to most of the fellows, and so the mistake arose.

After Dr. Barnes had given notice of a special motion relating to the midwifery section of the report, the adjournment of the debate was moved by Dr. Tilbury Fox, seconded by Dr. Douglas Powell, and carried.

On Saturday the adjourned debate took place. Dr. Tilbury Fox opened the discussion by stating that for several cogent reasons it seems most desirable that the College should not at present take any further steps in regard to the report of the Committee of Reference of the Conjoint Examination Board for England. In the first place there was no hurry, as asserted, why the College should send the report to the Medical Council with its final opinion thereon, for as Parliament would certainly legislate upon medical education this session, and compel the formation of conjoint examination boards in the three divisions of the kingdom, the Scotch and Irish bodies had yet to devise regulations, or at any rate to discuss, modify, or approve any regulations that may be submitted to them to meet the decision of Parliament, which might be opposed, perhaps, in essential particulars to the report now before them. Was it worth while therefore, under these circumstances, to waste time over the criticism of a document which, within a few weeks or months, might be a dead letter? There would be the less hesitation in postponing the discussion of the report, inasmuch as the Royal College of Surgeons—which is quite as much interested in the Conjoint Scheme as the College of Physicians—decided to await the fate of the new Bills before Parliament before proceeding to the further consideration of the proposed regulations. But there was another, and an altogether conclusive, reason why they should not proceed further in the matter before the College. The scheme before them was approved by the General Medical Council as it now exists, but since they met last the Government had nominated a Select Committee to inquire into the constitution of the Medical Council, and to suggest modifications in its constitution, and had likewise undertaken not to proceed with its Medical Bill until the report of the Committee had been received, so that its conclusions might be, if desirable, included in the Bill. That is to say, the present General Medical Council may be defunct, and a fresh Council constituted on different lines before very long, and this new Council might greatly modify the terms and details of the present English Conjoint Scheme. For the same reason it was useless for them to send up the report and the criticism at once to the present Medical Council. This could not serve any useful purpose, and he therefore moved that "the further consideration of the report be postponed till the fate of the Government Bill now before Parliament shall be known."

The motion was briefly seconded by Dr. Barnes.

Dr. West observed that they were told on Thursday that it was of the utmost importance that the scheme should be passed without delay. The fellows now learnt from the President and Registrar that it was a matter of no importance whatever whether it was passed immediately or not, as the scheme would have to wait for discussion by the College of Surgeons. He thought, however, that, as the College of Physicians had always shown itself so thoroughly in earnest with regard to the scheme, it was most desirable that the fellows should employ every effort to carry it into effect.

The motion was then put, when six fellows voted for it.

The President then submitted the second part of the report to the consideration of the fellows.

Dr. Duckworth moved that this portion of the report be read paragraph by paragraph. This was seconded by Dr. Norman Moore, and was carried by 12 to 10. A short discussion was raised by Dr. Andrews with regard to the length of the oral examinations, Dr. Andrews maintaining that the duration of *vivâ voce* examinations should be left to the discretion of the examiner according to the aptness of the candidate. In the end, however, the report was agreed to without the alteration of a single passage of its contents.

THE PLAGUE.

THE infected area on the Lower Volga still continues free from plague. No new case of the disease has been reported since February 9th, and the sanitary cordons established around the infected villages have been raised, with the exception of the cordon at Selitrenia, which will be raised on the 23rd inst. Previous to the removal of the cordons, a careful medical inspection of the inhabitants of the several villages was made. At Vetlianka the inhabitants were required to give up to the authorities all articles which had been brought from Turkey by returning Cossacks, in order that they might be burnt. This requisition led to the immediate production of nineteen fezzes and other articles, for which the proprietors received liberal compensation. It is believed that forty-two houses in this stanitza will be given to the flames.

The French medical delegates, Messrs. Lallemont and Traher, arrived at Vetlianka on the 10th March, and the Danish medical delegate, Dr. Falberg, and for Finland, Dr. Spoda, arrived there the day following.

The question of origin of the outbreak at Vetlianka is debated by the foreign delegates. Dr. Besiadetsky, the Austrian delegate, and Dr. Cabadis, the Turkish (whose name has been made familiar to us by recent proceedings of the Epidemiological Society), are reported to incline to the opinion that the disease was not imported from Turkey. Dr. Eichwald, on the contrary, holds that the malady was introduced from Asiatic Turkey, and more particularly from the neighbourhood of Kars. Dr. Petresco, the Roumanian delegate, maintains that the disease was brought to Vetlianka from Astrakhan city by one Marthe Pissarew. From all which it is pretty obvious that the delegates were at the time of this report at fault in the matter.

Dr. Hirsch has been ill, but on the 10th March he had so far recovered as to be able to take a slight walk.

Dr. Eichwald reports that Dr. Saignivew and Madame Bestoujew have investigated the outbreak of plague at Priehiba, one of the villages within the infected area. From this inquiry it appears that sixteen persons fell victims to the malady in the month of December last. The disease had been imported from Vetlianka, at different times, into two houses, of which all the inhabitants perished. Eight individuals were attacked and lost their lives in one house, and four in another. The four workmen who buried the bodies, and who lived together in another house, were all seized with the disease and died. No other cases occurred in Priehiba. The sanitary cordon surrounding the village was raised on the 20th February. The infected houses were destroyed by fire.

Professor Levin, of Berlin, who is reported to have confirmed Professor Botkine's diagnosis of mild plague in the case of the porter Prokofiew, has written to the *Journal de St. Petersburg*, protesting against and denying the report. He says:—"I observed in Prokofiew a clearly defined enlargement of the inguinal glands, the consequence of syphilitic disease, which the patient had suffered from three years before, as appeared from the statements of Prokofiew. There was a visible cicatrix. As to the inflammation which occurred in one of the glands of the left groin, accompanied with transitory fever, and followed by suppuration, it appeared to me to have been caused by an exposure to cold when the patient was over-fatigued—a common occurrence, according to my experience, among the labouring classes.

"I did not observe any symptom of an infectious malady whatsoever, still less of plague—no enlargement of the liver or of the spleen, not a trace of petechiæ, and no pustules.

"I have had occasion to examine three other patients in the hospitals of St. Petersburg, but the sole symptoms I observed were ordinary consequences of a rheumatic catarrhal affection, which had produced an inflammatory irritation of one or other of the lymphatic glands."

This may be clear to Professor Levin, but he must not be surprised if it is not equally clear to all other medical men.

Professor Botkine has withdrawn from the Commission appointed in St. Petersburg to consider measures for protecting the city from plague, in consequence of the different opinions held by himself and the other medical men on the Commission of cases of the class referred to by Prof. Levin.

The latest news from Astrakhan reports the indisposition of Governor-General Loris Melikoff.

Correspondence.

"Audi alteram partem."

THE MEDICAL ACT AMENDMENT ACT (UNIVERSITY OF LONDON) 1873.

To the Editor of THE LANCET.

SIR,—Now that the air is full of rumours of medical reform, I should like, with your permission, to bring before the readers of THE LANCET, and especially those who are graduates of the University of London, some facts which seem to me to make it advisable to seek the repeal of the above-mentioned Act of Parliament, which was obtained for the purpose of enabling the University to participate in the "Conjoint Scheme."

The principal clause of this Act is as follows (the italics being my own):—"If, in pursuance of the principal Act, the University of London unites or co-operates with any of the colleges or bodies in that behalf mentioned in the Medical Acts in conducting the examinations required for qualifications to be registered under the principal Act, then, notwithstanding anything in any statute or charter contained, it shall be lawful for the Chancellor, Vice-Chancellor, and Fellows for the time being of the said University, to prescribe by a bye-law under the common seal of the said University, that no person shall become a doctor or bachelor or licentiate of medicine or master in surgery of the said University, unless (in addition to passing such examination, if any, and complying with such other conditions, if any, as may be prescribed by any bye-laws in force for the time being made in pursuance of any charter of the said University) *he shall have passed such examination for qualification to be registered under the Medical Act, and complied with such conditions relating thereto, as may be agreed upon between the said University and the college or body, colleges or bodies, with whom the said University may be united or co-operating as aforesaid.*"

Thus it appears that, as soon as that Conjoint Scheme in which the University is participating (the English scheme) becomes law, the University, which was instituted for the benefit of all classes and denominations throughout the whole British empire, will be unable to confer its medical degrees upon any except those comparatively few persons who may have previously passed a certain examination in that very small part of the British empire called England. In other words, an Imperial University will be fettered by a local board.

I should not have troubled you with these remarks were it not evident that the College of Physicians and the College of Surgeons will in some degree retain a power which the University of London will entirely forfeit. At present there are three minimum licensing qualifications to be obtained in London—viz., M.R.C.S., L.R.C.P., and L.S.A., and there may be said to be also three higher qualifications—viz., F.R.C.S., M.R.C.P., and M.B. (London). When the Conjoint Scheme becomes law the examinations for the three first-named qualifications will be welded together, but the College of Surgeons and the College of Physicians (as I was definitely informed at a recent meeting of the College) will still retain the power of conferring their higher diplomas upon any registered practitioners who are able to comply with the regulations. The University of London, however, will be prohibited from conferring its medical degrees upon any practitioners of medicine excepting such as have passed through the *English* portal. In times past the degree has been sought by Scotch, Irish, and colonial practitioners, who have used it, not as a licensing diploma, but rather as an ornamental distinction. Henceforth the University of London will be unable to confer its degree upon candidates of this class, even if they have passed one of those "conjoint examinations" which we are told are to be established in Scotland and Ireland. Can any of your readers tell me why it is that the University of London alone of the four English universities required a special Act of Parliament to enable it to participate in the Conjoint Scheme? If the other universities have forfeited their powers of conferring degrees to a similar extent, it seems to me that it would be certainly to the public interest that the four universities should retire absolutely from the scheme in question.

It is neither necessary nor desirable that university degrees should give admission to the ranks of any profession, but it is most desirable that universities should retain their power of granting their degrees to any and every one (whether a British subject or not) who can satisfy the requirements of the examiners. Although I wish to see the University retain its independence in the matter of granting its medical degrees, I do not think it at all necessary that those degrees should confer any licence to practise.

Why cannot the objectionable clause quoted above be altered in such a way as to leave the university unfettered, and at the same time offer no obstacle to the Conjoint Scheme? Why, for example, should not such a clause as the following be substituted for it?—"If, in pursuance of the principal Act, the University of London unites or co-operates with any of the colleges or bodies in that behalf mentioned in the Medical Act in conducting the examinations required for qualifications to be registered under the principal Act, then the degrees in medicine and surgery of the said university shall cease to give to the possessor of them the right of admission to the Medical Register."

I may add that the Act of Parliament which is the subject of this letter was obtained by the Senate without consultation with Convocation, and in direct contravention of the terms of the charter.

I am, Sir, your obedient servant,

Wimpole-street, March 17th, 1879. G. V. POORE.

NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

To the Editor of THE LANCET.

SIR,—In the notice of the National Hospital for Consumption and Diseases of the Chest on the Separate Principle, which was founded by me some years since at Ventnor on account of the salubrity and general suitability of the climate, you express the fear lest this hospital should drift into hopeless bankruptcy. I trust that no such fate as this is in store for it: that would indeed be a reproach alike to the discernment of the medical profession and of the charitable public.

The principle upon which this hospital has been built and carried out, the perfection of its arrangements generally, the beauty of its position, and the excellence of the climate—all combine to place this institution much in advance of all hospitals which have hitherto been founded in England or elsewhere for the alleviation and cure of diseases of the chest. With the exception of this institution and one or, perhaps, two others, the hospitals for consumption are all situated in London, where another subsidiary hospital for the same class of diseases, strange to say, is about to be erected.

It is quite true that the Board of Management and the active treasurer of the National Hospital for Consumption have found it necessary to make continued exertions in order to obtain the funds requisite for the maintenance of the institution; but hitherto, and now for a period of about ten years, those exertions have been successful, and the hospital has been kept full both winter and summer. The principal reason of the difficulty experienced in obtaining the required annual income—the hospital being unendowed and wholly dependent upon voluntary contributions—is, I believe, that it is entirely confined to the reception of in-patients, and that it has no out-patient department, as have most other hospitals. Where this exists, applicants are relieved by thousands instead of by hundreds, the friends and supporters of the hospital are proportionately increased, and the funds in consequence greatly augmented.

What therefore is wanted in the case of the Royal National Hospital for Consumption, to insure its permanent stability, is a well organised and partially self-supporting out-patient department in London, and in the establishment of this no great difficulty need, I am sure, be experienced.

I have not taken any very active part in the hospital for now nearly three years, but my interest in it has been as keen as ever, and I see with much regret by the last annual report that the average period during which patients are retained in the hospital has been gradually reduced until it now reaches only seven weeks and a half, whereas in the early years of the existence of the hospital the period was much longer, although still, as I have often felt, far too short to effect that lasting benefit which should be the principal aim of a rightly constituted hospital for consumption. I mention this, not with the view of finding fault, but because this reduction of time is one which goes far to nullify the value of the separate principle on which the hospital was founded.—I remain, Sir, your obedient servant,

ARTHUR HILL HASSALL, M.D.

San Remo, March 9th, 1879.

THE STUDY OF MIDWIFERY.

To the Editor of THE LANCET.

SIR,—The Committee of Reference appointed by the co-operating medical authorities having finished its work, it seems probable that the proposed scheme for conjoint examination may shortly come into operation. Its provision for the teaching of obstetrics is so defective, from the point of view taken by those who are interested in the subject, that I beg your permission to comment upon it. It is obviously hopeless to appeal to the Committee, which does not include a single individual known as an obstetrician, and who is presumably acquainted with the extent to which obstetric medicine has advanced of late years, and the only thing now to be done is to appeal from the decision of the Committee to the common sense of the profession at large.

In Paragraph 17 of Section 1 of the proposed regulations, it is required of the student that he shall produce evidence "of having attended a course of lectures on midwifery and diseases peculiar to women during not less than three months. Note F.: Instruction in the use of obstetrical instruments must be included in this course."

In making this regulation the Committee could not have been ignorant of the fact that the teachers of midwifery in London were unanimously of opinion that it was impossible to teach these subjects in so short a space of time, and that they were most desirous of having the curriculum on this point assimilated to that which exists in Scotland, and, I believe, in Ireland also, where a six months' course is imperative. In plain words, this amounts to a resolution that midwifery and gynecology shall not be taught at all, since the attempt to do so in a summer course of under forty lectures is nothing short of a solemn farce. I am confident that every teacher of midwifery in London will endorse this assertion. Permit me to illustrate this statement by my own experience. I believe I can get through my lectures as rapidly as anyone else, but last year I was obliged to omit all reference to such important topics as the diseases of the puerperal state, including puerperal fever, convulsions, mania, phlegmasia dolens, practical teaching in the use of obstetric instruments (which the Committee tells us must be included in the course), and much besides. The year before I omitted conception and generation, the physiology and pathology of pregnancy, placenta prævia, &c. During all the years I have lectured I have never once been able even to refer to the diseases peculiar to women. What I am obliged to omit other teachers have to omit also, and the profession will be able to judge for itself whether this can be called satisfactory teaching.

The Committee of Reference consists of a number of eminent physicians and surgeons, and an examination of their scheme shows how admirably they have attended to the teaching of the subjects in which they are specially interested. Of course the student has to attend six months' courses of medicine and surgery; but, besides this, we have introduced what, so far as I know, is an entire novelty in a medical curriculum—viz., two separate and distinct courses of six months each on what is called "practical medicine," and "practical surgery." In one of these he is to be taught the methods of physical examination, the examination of diseased structures, &c.; in the other the use of surgical apparatus, the performance of operations on the dead body, &c. Would it be presumptuous in me to suggest that it would be more easy, and certainly more profitable to the students, to compress these subjects into three months' courses rather than the entire theory and practice of midwifery and the diseases of women? Moreover, the latter includes quite as much practical work as either medicine or surgery, and it is needless to add that the scheme contains no provision for a course of "practical obstetrics." Had this been a scheme for the education of pure physicians and surgeons, such as constitutes the majority of the Committee which concocted it, it would doubtless have been excellent. As a matter of fact, however, it professes to be a scheme for the education of the general practitioner, of whose daily work midwifery and the diseases of women constitute quite as large a portion as medicine, and far larger than surgery. To the two latter twelve months' tuition is allotted; to the former three only. These facts speak for themselves, and I am satisfied that the bulk of the profession will agree with me that in this matter the Committee has dealt very unfairly with a great and important branch of practice, the anxieties and responsibilities of which weigh heavily on all who are occupied with it. At any rate, it ought to be well understood that if, after protesting that it is impossible to teach these subjects in three months, I and my fellow lecturers send these pupils into the world ignorant of half of midwifery, knowing next to nothing of the application and uses of obstetric instruments, and scarcely even having heard of the diseases of women, the responsibility will not rest on us, but rather on those who have imposed on us a task which is an impossibility. I am, Sir, yours, &c.,

W. S. PLAYFAIR.

George-street, Hanover-square, March 14th, 1879.

THE MEDICAL BILL.

To the Editor of THE LANCET.

SIR,—You give prominence in your number of the 15th (p. 384) to a statement by a Glasgow correspondent that "the universities of Scotland give the Bill an unflinching out-and-out opposition." In justice to this University, permit me to mention that the statement is not correct. This University has taken no step regarding the Medical Act Amendment Bill now before the House of Lords.

I am, Sir, your obedient servant,

JOHN STRUTHERS.

Aberdeen University, March 17th, 1879.

SWINE PLAGUE.

To the Editor of THE LANCET.

SIR,—In this week's number of your esteemed journal is an annotation on Swine Plague, in connexion with which my name is mentioned in the sentence, "Klein names it pneumo-enteritis." In this same article the writer in several instances enumerates facts that are clearly derived from my researches on the subject (Proceedings of the Royal Society, No. 185, 1878, and especially my extensive paper in the Report of the Medical Officer of the Local Government Board for 1877). But since, no doubt unintentionally, the writer of that article does not state this, I take the liberty, with your permission, of supplying your readers with this information.

Yours obediently,

Longridge-road, Earl's-court, S.W. E. KLEIN, M.D.

*** In the article above alluded to by Dr. Klein, some of the results of his researches, as well as those of other investigators, are given; but, considering the brevity of the annotation, and that it was not intended to give a historical notice of the malady, but merely to draw attention to its increasing prevalency, we did not think it necessary to enumerate all those who have studied it. We may here note, however, that some of Dr. Klein's conclusions are disputed, or have not been corroborated by subsequent observers. We may also add that, recently, the disease has been communicated by inoculation to the rabbit and sheep, and the identity of the disease in these proved by reinoculating the virus on the pig.—ED. L.

PARIS.

(From our own Correspondent.)

I AM glad to be able to add some further and original particulars to the account which I gave you in my last letter of the very interesting experiment made with Professor Bert's new anæsthetic—namely, a mixture of nitrous oxide and oxygen under tension. This is the first trial made with the anæsthetic on a human being, and it has proved so successful that it deserves to be made known in all its details.

The experiment was performed on February 13th in the "aerotherapic" establishment of Dr. Daupley's, Rue Malesherbes. Dr. Labbé, surgeon to Lariboisière Hospital, was to operate on a young woman of twenty for in-growing nail; and M. Préterre, who has great experience of nitrous oxide, was to apply the gas. The other persons present were Prof. Bert and MM. Reynard, Laffont, and Blanchard. At 11 o'clock the whole party entered the large compressing bell of the establishment, and the patient reclined on some mattresses on the floor. At ten minutes past 11 the pressure had increased to 17 centimetres without any of the party having experienced any discomfort except some noises in the ears and a feeling of tension in the membrana tympani, which were easily removed by a movement of deglutition. At this moment M. Préterre applied to the patient's nose and mouth the apparatus which he is in the habit of using, and which communicated with a large bag containing 120 litres of the following mixture: nitrous oxide 85 parts, oxygen 15 parts. After a few seconds of hesitation the patient began to breathe deeply, and in about a quarter of a minute insensibility and muscular relaxation were complete. Dr. Labbé then leisurely performed the operation, during which the patient never gave a single sign of pain or reflex action. The eyes were shut and insensitive, and the pupils slightly contracted. About the fourth minute, as Dr. Labbé was beginning the dressing, there were a few contractions of the hands and feet; but this was all, and, as the operation was now over, the apparatus was removed. It was then fifteen minutes past eleven.

The contractions ceased, and the patient remained motionless and asleep for about half a minute. She then complained of pain in the toe, and cried a little. Less than a minute after she sat up, and declared that she had felt nothing during her sleep, but that she "had gone to heaven, and had seen everything blue with stars." She declared she felt no pain, except slight headache, to which she is subject, and said she wanted her breakfast. Nothing could be more striking than this calm and quiet waking up, compared with that which follows chloroform. The pulse had been constantly calm, and the complexion natural and rosy.

The following technical figures, given by Professor Bert, may be of interest. The depression commenced at 11.15 and ended at 11.19. The total pressure having ascended to 75 c. + 17 c. = 92 c., the tension of the nitrous oxide was expressed thus: $85 \times \frac{92}{75} = 104$; or, in other words, was slightly above that of pure nitrous oxide breathed in the open air under normal tension. The tension of the oxygen was $15 \times \frac{92}{75} = 18{\cdot}4$; or, in other words, was slightly below that of ordinary air (20·9). But the difference is too slight to be of any consequence. It is, says M. Bert, as if one were on the heights of Chamounix (67 c. of barometric pressure).

This experiment has successfully shown that Professor Bert's mixture, which does not produce any anæsthetic phenomenon under ordinary pressure, has the effect, when applied under tension, of producing complete insensibility. Professor Bert therefore claims for the new anæsthetic that its application is simple, that it is easily dosed, that it is perfectly harmless, and that it is not preceded by a period of excitement or followed by the stage of reaction.

Paris.

Obituary.

MR. CHARLES LARKIN, M.R.C.S.

WE have to record the death of one of the oldest of our medical men, Mr. Charles Larkin, surgeon, of Newcastle-on-Tyne, who died on the 28th ult., in the eightieth year of his age. Mr. Larkin was not only an eminent and much-respected medical practitioner, but was pre-eminently distinguished as a most eloquent public speaker and prominent politician. He was a man of very high classical attainments, and was profoundly versed in the literature of his own country. He took an active and leading part in national and local politics, and was connected with most of the great movements of the last fifty years. He was the founder and editor of two newspapers, the *Newcastle Press*, and the *Newcastle Standard*, in which he showed great ability and power as a journalist. He was a frequent and most popular lecturer on scientific and literary subjects, and will long be remembered in the north of England as one of its most eminent men, and perhaps most accomplished and brilliant orator. He received his medical education at the Middlesex Hospital and Windmill-street School.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on March 13th:—

Clements, Henry Joseph, Dingle, Co. Kerry, Ireland.
Fitzgerald, Robert, St. Mary's-square, Paddington.
Harewood, John Gasson, Boston, Lincolnshire.
Lunn, John Reuben, St. Thomas's Hospital.
Wey, Alfred Cox, Tavistock-road, Plymouth.
Wilkinson, Charles Fixott, Stock Orchard Villa, Holloway.

The following gentleman on the same day passed the Primary Professional Examination:—

Downes, Charles Hagger, Guy's Hospital.

H.R.H. the Prince of Wales has consented to be the patron of the Hospital for Women, Soho-square.

VACCINATION GRANTS.—Mr. Brownlow Hyatt, of Shepton Mallet, and Mr. J. Colegrave, of Bloxham, have each received a Government gratuity for efficient vaccination.

DETAILS concerning a miser, in whose dilapidated and wretched house some £75,000 were found, are circulating in the provincial press. This eccentric person was, however, generous in his peculiar way, for he has contributed £5000 to the Institutions for Idiots and Imbeciles.

TARCROSS, a fishing village near Dartmouth, is reported by the Kingsbridge Board of Guardians, who went to inspect the place, to be in a most disgraceful condition. There are but two small closets for the sixty-two inhabitants. The Board has served a notice upon the landlord to provide necessary accommodation, but nothing has yet been done.

DUBLIN CONVALESCENT HOME.—The subscriptions received or promised up to the close of the past week amount to about £800; but negotiations for the renting or purchase of suitable premises will not be entered upon until funds are available amply sufficient to make the necessary alterations and repairs.

THE mortality-rate of London last week exhibited a slight diminution from the former return, being 28·7, as against 29·2 in the week ending March 8th. There were 15 deaths from small-pox, 26 from measles, 20 from scarlet fever, 7 from diphtheria, 74 from whooping-cough, 22 from different forms of fever, 11 from diarrhœa; whilst the number of fatalities from diseases of the respiratory organs was, curiously enough, precisely the same last week as in the previous one—viz., 681.

Medical Appointments.

ALLEN, J. G., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Attendant to the Royal Irish Constabulary, Rich-hill, co. Armagh, vice White, deceased.

BARRY, D. P., M.D., has been appointed a Consulting Medical Officer to the Twining Hospital, Twickenham.

BATTERSBY, H. J., M.B., C.M., has been appointed Medical Officer, Public Vaccinator, &c., for the Hacketstown and Coolkenno Dispensary District of the Shillelagh Union, co. Wicklow, at £100 per annum and fees, and £15 per annum as Medical Officer of Health, vice Clendinnen, resigned.

BELL, Mr. J. C., has been appointed Public Analyst for the Borough of Glossop, at 21*s.* per analysis for the first fifty in one year, 10*s.* 6*d.* per analysis for the second fifty, and 5*s.* per analysis beyond.

BENTHALL, A., M.R.C.P., L.M., M.R.C.S., M. & L.S.A.L., has been appointed Resident Medical Superintendent to the Twining Hospital, Twickenham.

BRUNKER, E. G., M.D., F.R.C.S.I., has been appointed a Member of Council of the Royal College of Surgeons in Ireland, vice Ledwich, deceased.

BULLOCK, J. E., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Western General Dispensary, Marylebone-road.

CLOWES, J. S., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Smallburgh Rural Sanitary District, Norfolk, at £80 per annum, vice the Poor-law District Medical Officers, whose appointments have expired.

CURNOW, J., M.D., F.R.C.P., has been appointed Consulting Physician to the Twining Hospital, Twickenham.

FRAZER, W., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Examiner in Anatomy at the Royal College of Surgeons in Ireland, vice Barker, deceased.

GOLLAND, A., M.R.C.S.E., has been appointed House-Surgeon to the Bolton Infirmary and Dispensary.

GWYNNE, C. N., M.B., C.M., has been appointed a Medical Officer to the Sheffield Free Hospital for Sick Children, vice O'Keeffe, resigned.

HAYDON, W. R., M.D., C.M., has been appointed Medical Officer and Public Vaccinator for the Cadbury and Cadeleigh District of the Tiverton Union, vice McClure, resigned.

HOLBERTON, V. H. A., M.R.C.S., L.S.A.L., has been appointed a Consulting Medical Officer to the Twining Hospital, Twickenham.

JEWELL, C. C., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Scarborough Dispensary and Accident Hospital, vice Moore, resigned.

JOSEPH, G. W., L.K.Q.C.P.I. & L.M., M.R.C.S.E., has been appointed Medical Officer for No. 1 District of the Warrington Union.

KING, E. P., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Chepstow Urban Sanitary District, at £30 for one year.

LUPTON, H., L.R.C.P.L., M.R.C.S.E., has been appointed Certifying Factory Surgeon for the Stratford-upon-Avon District, vice Rice, resigned.

MCENIRY, D., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer, Public Vaccinator, &c., for the Ballymacarbry Dispensary District of the Clonmel Union, at £100 per annum and fees, and £14 per annum as Medical Officer of Health, vice Stafford, deceased.

MCNAB, W. R., M.D., has been appointed Lecturer on Botany at the Carmichael School of Medicine, Dublin, vice Blakely.

MOORE, Mr. E. H., has been appointed Public Analyst for the City of Chichester, at £10 10*s.* per annum, 7*s.* 6*d.* for each analysis of food or drugs, and 21*s.* for each analysis of water.

MURPHY, E., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Dunfanaghy Dispensary District of the Dunfanaghy Union, co. Donegal, at £100 per annum and fees, and £10 per annum as Medical Officer of Health, vice Wolseley, resigned.

NIXON, F. A., L.K.Q.C.P.I. & L.M., F.R.C.S.I., has been appointed a Surgeon to Mercer's Hospital, Dublin, vice McDowell, deceased.

NUNDY, E., L.R.C.S.Ed., L.S.A.L., has been appointed Resident House-Surgeon to the Beckett Hospital and Dispensary, Barnsley, vice Smith, resigned.

O'KELLY, T. E., L.R.C.P.Ed. & L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Maynooth Dispensary District of the Celbridge Union, co. Kildare, at £100 per annum and fees, and £15 per annum as Medical Officer of Health, vice E. T. O'Kelly, M.D., deceased.

O'MULLANE, E. J., L.K.Q.C.P.I. & L.M., L.R.C.S.Ed. & L.M., has been appointed Medical Officer to the Nottingham Friendly Societies' Medical Institution, at £200 per annum, with unfurnished house, coals, gas, rates (except income-tax), and cab-hire.

PALMER, F. W., L.R.C.P.Ed., L.S.A.L., has been appointed Medical Officer and Public Vaccinator to the No. 4 District of the Devizes Union, vice Scoresby-Jackson, resigned.

ROSE, W., B.S., F.R.C.S., has been appointed Consulting Surgeon to the Twining Hospital, Twickenham.

SELLS, C. J., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed a Medical Officer to the Royal Surrey County Hospital, Guildford, vice Schollick, resigned.

SKRIMSHIRE, C. P., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Brynmawr Urban Sanitary District, at £40 for one year, ending 25th March, 1880.

STEELE, J., M.R.C.S.E., has been reappointed Medical Officer of Health for the Ovenden Urban Sanitary District, Yorkshire, at £35 for one year.

STOKER, W. T., M.D., F.R.C.S.I., L.K.Q.C.P.I., has been appointed a Member of Council of the Royal College of Surgeons in Ireland, vice McDowell, deceased.

TERRY, C., M.R.C.S.E., L.S.A.L., has been appointed Certifying Factory Surgeon for the Newport Pagnell District.

WEATHERHEAD, J. F., M.R.C.S., L.F.P.S.G., L.M., L.S.A.L., has been appointed Medical Officer for the Brentford District of the Twining Hospital, Twickenham.

WILLIAMS, D. M., M.R.C.S.E., L.S.A.L., has been appointed Certifying Factory Surgeon for the Olney District.

Births, Marriages, and Deaths.

BIRTHS.

COWAN.—On the 12th inst., at Dunbar, the wife of John Sime Cowan, M.D., of a son.

HANNAH.—On the 10th inst., the wife of Nathan Hannah, Surgeon, of Ashton-in-Makerfield, of a daughter.

LEADAM.—On the 13th inst., at Gloucester-terrace, Hyde-park, the wife of William Ward Leadam, M.D., of a daughter.

MCCONNOCHIE.—On the 10th inst., at Abbotsford-place, Glasgow, the wife of James McConnochie, M.D., of a daughter.

SPENCE.—On the 7th inst., at Denholm, the wife of Robert Spence, M.D., of a daughter.

WALDO.—On the 10th inst., at Clifton, Bristol, the wife of Henry Waldo, M.D., of a son.

MARRIAGES.

CROSSMAN—ROWE.—On the 17th ult., at St. Paul's, Shadwell, John Crossman, M.R.C.S.E., to Maria Langdon, daughter of S. T. Rowe, Esq.

SMITH—BREACH.—On the 20th ult., at Ashton-Upthorpe, John Percival Smith, L.R.C.P.Ed., to Eliza Jane, daughter of John Breach, M.R.C.S.E.

DEATHS.

BRIETZCKE.—On the 11th inst., at Portsea, Henry Brietzcke, L.R.C.P.I.

BUCKLEY.—On the 12th inst., at York-place, Harrogate, William Halstead Greedwood Buckley, M.R.C.S.E., aged 62.

BUSH.—On the 7th inst., at Frome, Edwin Bush, M.R.C.S.E., aged 71.

DUCKWORTH.—On the 6th inst., at Addingham, Yorkshire, Walter Duckworth, Surgeon, aged 67.

EDMONSTON.—On the 7th inst., at Halligarth, Unst, Shetland, Laurence Edmonstone, M.D., aged 84.

FLETCHER.—On the 7th inst., at Brook-road, Stoke Newington, George Frederick Fletcher, M.R.C.S.E., aged 56.

JAMES.—On the 14th inst. (suddenly, in a railway train), Thomas James, M.R.C.S., of Louth.

JENKINS.—On the 12th inst., at Copelands, Hereford, Henry Jones Jenkins, M.R.C.S.E.

MARKHEIM.—On the 11th inst., at Sorrento, Italy, Alfred J. H. G. Markheim, F.F.P.S.G.

OLLARD.—On the 8th inst., at York-row, Wisbech St. Peter, William Ollard, M.R.C.S.E., aged 79.

ROSE.—On the 6th inst., at Hermon-hill, Wanstead, Charles Rose, L.R.C.P.Ed., aged 71.

SIMM.—On the 5th inst., at Ovington-square, Brompton, John Simm, M.R.C.S.E., formerly of the Madras Medical Service, aged 81.

WALSH.—On the 12th inst., at Castlebar, co. Mayo, Charles Joseph Walsh, L.K.Q.C.P.I., aged 35.

N.B.—*A fee of 5*s*. is charged for the insertion of Notices of Births, Marriages and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 20th, 1879.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb	Dry Bulb	Solar Radiation in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 14	30·26	N.E.	33	35	..	43	32	..	Snowing
„ 15	29·84	W.	41	43	..	52	33	0·11	Cloudy
„ 16	29·72	W.	43	48	..	55	40	..	Overcast
„ 17	30·13	E.	39	40	..	45	38	0·04	Overcast
„ 18	29·92	S.E.	42	43	..	53	30	..	Cloudy
„ 19	29·73	E.	45	48	..	63	41	0·14	Foggy
„ 20	29·80	E.	43	47	..	58	44	..	Overcast

Notes, Short Comments, and Answers to Correspondents.

FATTY EMBOLISM IN FRACTURES.

IN 1862, Zenker, on making a post-mortem examination of the body of a man crushed between two waggons, found the capillaries of the lung loaded with fat. Though he recorded this fact as pathologically interesting, he failed to discern the relation between the fatty embolism of the lung and the injury. It was not till 1865 that Wagner and Busch first gave an exact account of the subject. It was soon established by experimental research that in all cases of fracture there was fatty embolism, seldom localised in the lung, but usually present in all the tissues, and that the origin of the fatty matter was most probably the medulla of the fractured bone. Finally, it appeared that the rapidly fatal termination in cases of severe injury must be often attributed to "fatty embolism," instead of to what surgeons term shock. The number of cases of fatty embolism hitherto published is considerable, amounting to 140, and almost all of these have been observed in Germany. Our correspondent at Vienna sends an account of two cases of fatty embolism of the lung. The first was that of a young man, who was admitted to the Hôtel Dieu on October 28th, 1878, and whose right leg had been crushed by a tram-car. He died less than an hour after the accident, after the loss of a considerable quantity of blood. He remained quite conscious to the very last. The house-surgeon who performed the necropsy found the tibia and fibula completely crushed, with a longitudinal fissure running up the shaft of the former as far as the knee-joint. Both venæ cavæ were ligatured and the heart and lungs carefully examined in the laboratory of M. Vulpian. The blood of the right side of the heart, obtained by a puncture through the ventricular walls, contained a very large quantity of fat in drops, which disappeared on the addition of ether, and were tinged black by osmic acid. The bloodvessels of the lung were gorged and literally injected with fat. The fatty masses plugging the small vessels were some as much as one-fifth of an inch long. The second case was that of a patient who had sustained a depressed fracture of the parietal bone, and who died within thirty-six hours. The pulmonary vessels were found to contain fat, though in smaller quantity than in the first case.

Mr. Atkinson.—We do not at present wish to recur to the case.

RIFLE-SHOOTING.

To the Editor of THE LANCET.

SIR,—I have for some years spent most of my leisure time in rifle-shooting, and have used both positions as described by Mr. Lowe; latterly only the back one, not on account of steadiness, but that the sights can be seen with greater clearness.

The effect of pulsation in a flexed limb is to cause slight extension; in the hands it would not be of sufficient strength to move the weight of the rifle. Thus in the face position, the rifle being supported by the left hand and arm, which is perpendicular and resting directly on the ground, any pulsation would cause a to-and-fro movement, and not an up-and-down one. The right hand discharges, and only gives slight support to the rifle; the butt rests against the shoulder, where the pulsation is slight. On the other hand, in the back position pulsation is given from the axillary artery, from the femoral (the rifle rests on the thigh directly over this in the middle third of its course), and again it must receive some movement from extension of the legs from pulsation of the popliteal arteries. The heart is from 10 to 12 beats per minute quicker in the back position described than in the face. Though the back position has more pulsation, it is freer from muscular tremor than the former one. The question of respiration does not enter in, as at the moment of sighting it is checked. The other *pros* and *cons* of the relative positions are too many to be mentioned.

Yours obediently,
GEORGE H. HART, M.R.C.S., &c.,
Kensington, March, 1879. Late Surgeon, 1st Warwick R.V.

Mr. Walter Jones will find all the information he requires in the Students' Number of THE LANCET, Sept. 14th, 1878, and will be able to draw his own conclusions from the facts there stated.

THE CARE OF THE INSANE IN AMERICA.

A MEDICAL contemporary in the States has been made uneasy by a study of recent annual reports of institutions for the reception of the insane. It is found that while the most lavish expenditure is displayed in the construction of these buildings, the utmost parsimony is exhibited in such supreme matters as the provision of adequate medical supervision and of skilled nursing. In many establishments there is only one physician to 300 or 400 patients, and one nurse or keeper to 40 or 50 patients; while the doctors "are either poorly paid or not paid at all." The treatment is decried as being unscientific and inefficient, and as consisting in allowing patients "to mope all day in a dreary corridor, and exhilarating them once a week with a dance or a drive." The regulations respecting admission and discharge of patients are also said to be defective, while the asylums themselves are greatly overcrowded. Lastly, there would appear to be a marked increase of lunacy in many of the States.

Mr. F. S. Gramshaw.—The insertion of the letter has been delayed by want of space. It will appear shortly.

Dr. Walter Fergus's letter shall be inserted in our next.

UNUSUAL LACERATION OF THE PERINEUM.

To the Editor of THE LANCET.

SIR,—As the case I am about to relate presents features of much interest to all who are engaged in obstetric practice, I trust you may be able to find room for its publication.

On the 18th ult., at 8 A.M., I had an urgent message from the midwife of the Westminster Workhouse, requesting my immediate attendance in the lying-in ward. I went at once, and on reaching the ward I was informed that a young single woman, aged twenty-four years, had been admitted at 6.50 A.M. in labour, and that the midwife, having been sent for, only arrived a few minutes before sending for me. To my inquiry what was the matter, I was startled by being told that on examination she had found that there was a head presenting at the natural passage, and another head was coming down through the anus! Hearing this I examined her myself. True enough there was the vertex of a head to be felt protruding through the vaginal opening, and something further back, which at first I was induced to think might be a prolapsus ani, with very enlarged piles. Considering that too much light could not be thrown on this anomalous condition of things, I directed that the labour-bed should be rolled from the dark corner in which it was located into the open, and I forthwith exposed her, when I found that which I had mistaken for piles was the face of a child much swollen and livid. At the moment of this examination the uterus was quiescent, and I was therefore enabled to make out that the protruded face and the vertex formed a continuous whole; that, in fact, there was only one head. From the forehead of the child to the vertex there stretched a portion of unruptured perineum, three inches long and half an inch thick. Whilst considering whether anything, and if anything what, could be done, uterine action came on, and about an inch and a half of the perineum was before my eyes torn through. Then all was still for an interval of about half a minute, when by a second uterine contraction the whole perineum gave way, and a fully-developed child, at first all but dead, though eventually recovering, was born.

After taking the customary steps where extensive laceration has taken place, I proceeded to ascertain the extent of damage done. At the time, from the situation of the face &c., I came to the conclusion that the recto-vaginal septum had given way, and that the fissure had been complete; but on my again examining her a fortnight after, I came to the opinion that it was just possible that a large portion of the rectum had remained intact, as I could make out a continuous passage, though the rectum was extremely thin, from the anus upwards for about three inches; added to this the fæces were fairly retained. From the anus forwards to the fourchette, a length of three inches, not the smallest amount of adhesion had taken place, and I shall hereafter, when her condition permits, have to pare the edges, and bring about adhesion in the usual manner—an operation from which I have been altogether deterred for the present by the sloughing and abundant purulent discharge.

The history prior to admission is, I learn, as follows:—She had been taken in labour the preceding day at 8 P.M.; nevertheless, she remained at her employment, that of a housemaid, until 12 at night, when she left and went to a female friend. This latter, discovering her condition, brought her to the infirmary at the time above stated.

On speculating on the cause of this anomalous condition of things, it is evident that the rupture was due to an extremely contracted state of the vaginal aperture and the inordinately long perineum; probably also the sacrum was not sufficiently hollowed, partaking of the male type. To whatever cause, however, it might be due, the case is of interest; for if it had occurred in the practice of an accoucheur, it might have led to the damage of his reputation, although I think I have clearly shown this mishap was solely due to a freak of nature.

I am, Sir, yours obediently,
Dean-street, Soho, March 17th, 1879. JOSEPH ROGERS.

VAGINAL DOUCHE.

To the Editor of THE LANCET.

SIR,—A customer has just drawn my attention to your kind notice of Dr. Rasch's vaginal douche in THE LANCET for the 8th of this month. As you will perceive by the signature, my name has been printed wrong. Dr. Rasch also has the same instrument on a smaller scale, fitted with bone mount, for nasal injection. Yours respectfully,
City-road, E.C., March 19th, 1879. JOHN C. KITE.

INTERNATIONAL HEALTH REPORTS FROM THE UNITED STATES.

THE weekly bulletins issued by Dr. Woodworth, Surgeon-General to the United States Marine Hospital Service, during the current year, have been regularly forwarded to us every week. They contain reports from Great Britain and all its towns, from Paris, Vienna, Bermuda, Berlin, Calcutta, and Bombay, and include many statistical particulars of much general interest. Indeed we should undoubtedly do well to follow the example of our Transatlantic brethren in their very laudable attempts to collect and codify systematically international notes as to sickness and mortality throughout the civilised world. There is a want of uniformity in the reports that reach us; but this is the natural result of a system at present incomplete Meanwhile our sympathy and interest are very much with Dr. Woodworth in his good and useful work.

Mr. Milner Moore is thanked for his communication.

THE SAINT PATRICK'S HOME FOR NURSES TO THE SICK POOR OF DUBLIN.

To the Editor of THE LANCET.

SIR,—In a short account of the meeting of the friends and supporters of the Dublin Hospital Sunday Fund, which appeared in your issue of February 8th, the following statement is attributed to Lord Meath:—"The employment of a better class of nurses is urgently required in the hospitals.....also means of providing nurses to visit the sick poor in their own homes. In Belfast a valuable institution having the latter object in view has been in operation for some years, and has been of the greatest service." Now, the natural inference from this would be that no such institution exists in Dublin, thereby ignoring the St. Patrick's Home for Nurses to the Sick Poor lately established at 24, York-street. There is in this home accommodation for twelve nurses, and, I need hardly add, work in our poor and crowded metropolis for many more. As yet we have but two trained nurses, one of whom is a midwife. The Committee hope, however, to increase the number as funds permit. These nurses are under the direction of a superintendent, who has herself been trained as a nurse in some of the best London hospitals. The value of such an institution can only be appreciated by one who is acquainted with the almost incredible destitution of the sick poor in Dublin, who are frequently found without proper covering or food, in addition to the sufferings of disease, and too often dependent upon the chance kindness of ignorant and sometimes drunken neighbours. There is not, I suppose, a practitioner who works amongst the poor who has not felt, at times, that his best efforts were neutralised by the want of a responsible and skilful attendant who will see that his instructions are fully carried out. The St. Patrick's Home for Nurses not only supplies this need by providing trained nurses to work amongst the sick poor, but also provides for them, when necessary, clothing, medicine, and food.

I am anxious to call the attention of the readers of THE LANCET, especially those in Dublin, to the existence of this institution, as I feel sure that it requires but to be known to be appreciated, not only by the poor whom it relieves, but also by the profession which it endeavours to assist and support.

Allow me, in conclusion, to say that the words attributed to Lord Meath were in reality spoken by Lord Plunket, Bishop of Meath, who alluded at the same time to the St. Patrick's Home, in which he takes an active interest; but as this did not appear in your report, I now write with the object of supplying what was omitted.

I am, Sir, obediently yours,

WILLIAM J. SMYLY,
One of the Medical Officers of the Institution.

Rotunda Hospital, Dublin, March 6th, 1879.

DIABETIC COMA, OR ACETONÆMIA.

To the Editor of THE LANCET.

SIR,—The record of Dr. Southey's cases of so-called acetonæmia in your issue of Feb. 8th, p. 192, has induced me to send you the following particulars of a similar case which I met with a little time ago.

I was sent for to visit a gentleman, aged thirty, who was known to me as the subject of diabetes. I was informed by his friends that he had used an enema late on the previous evening, after which he complained of feeling feeble, and my attendance was requested as he was noticed to be "wandering." I saw him about 11 A.M. He lay on his back in an apparently comatose condition, but answered questions partly when roused; respiration 24; pulse 84. Struck by the almost corpse-like feel of his body, I placed a thermometer in his axilla, adjusted it carefully, allowed it to remain for fully five minutes, and on withdrawing it found, to my surprise, that it registered only 96°, this being the lowest mark on the scale of the instrument which I was then using. I saw him again the same evening at 5 P.M. His pulse and respiration were as before, and his temperature was 96·6°; he still answered questions when roused. My last visit was at 9.30 P.M. His respiration was then 24, his pulse 80, but much feebler; his temperature was 91·6°. He died next morning at 9.30, before my visit.

It will be seen that he lived very nearly twenty-four hours after his temperature was noted to be 96°. It would be interesting to know if the usual subnormal temperature found in diabetes becomes much lowered during the comatose condition which sometimes precedes death in that disease. If this were found to be so, it might be the means of clearing up an occasional doubtful diagnosis. In the case, for instance, to which I have referred, and also in another I have seen (but of which unfortunately I have no temperature record), there was suppression of urine during the comatose period. Under such circumstances a medical man unacquainted with the previous history of the case might have considerable difficulty in deciding to what the coma was due, but a temperature much below normal would at once suggest it to be the result of diabetes. Your obedient servant,

G. F. ELLIOTT, M.D.,
Feb. 11th, 1879. Physician to the Hull Infirmary.

POCKET FILTERS.

WE are glad, in these times of war, famine, and pestilence, to direct attention to a variety of pocket filters recently patented by the Silicated Carbon Filter Company of Battersea. The essential item of the filters is the charcoal cake, which is, we presume, precisely similar in composition to that used in the large household and other filters made by this Company. The covering is of glazed earthenware, and so can be kept clean with very little trouble. It is in every respect a good portable filter; but the outer box should be made somewhat stronger, for only they who have journeyed in South Africa know the quality and quantity of destructive blows to which such things are subjected in the course even of an average journey. Block-tin would be not too heavy or strong for the purpose. No less than 2000 of these filters have been sent to Natal for the use of the troops.

L.R.C.P.L. has forgotten to enclose his card, which is necessary in order to indicate the paper to which he refers.

J. J. is thanked.

Mr. Godson.—A most dangerous remedy.

ABSENCE OF THE VAGINA IN A MARRIED WOMAN, THE URETHRA DISCHARGING ITS FUNCTIONS.

To the Editor of THE LANCET.

SIR,—The subjoined case, which occurred in my practice, is so unusual as perhaps to be worthy of record.

Mrs. —— consulted me in September, 1877. She had been married two years, and her periods were regular. In the early months she had suffered intensely during coitus. Of late the suffering has not been so acute, but much sickening distress follows, as also the desire immediately to micturate. On digital examination, which was painless, I could feel the os uteri as if covered by a membrane; along the cervix in front the finger travelled, without force, onwards into a cavity. The condition of things was obscure. On ocular inspection, I found that what seemed to be the vagina was really the urethra widely dilated; it admitted two fingers easily. I passed the smallest Ferguson's speculum into the bladder, very gentle pressure being enough to overcome its sphincter. Urine flowed down the speculum, and through it the mucous membrane could be clearly seen. The labia were thin; the perineum, an inch deep, presented no trace of a vaginal orifice. A sound in the bladder and a finger in the rectum found intervening, below, a thin septum; above, a full-sized virgin uterus. Her previous history was this: When in her sixteenth year her health was indifferent, which, with various discomforts and pains, were attributed to delayed menstruation. For this she was ordered steel and "forcing medicines." When sixteen years old she suddenly became unable to pass urine, and her usual attendant failed to relieve her; but another surgeon drew off, after three days' retention, a large quantity of urine, to her great relief. One morning, some weeks after this sole occasion of retention, she experienced while in bed a sensation of something having snapped, followed by the escape of a considerable quantity of dark treacly fluid. She remained in bed two or three days because of pain in the back and stomach. The discharge soon ceased, and with it the feeling of fulness which she had for some time experienced. Ever since—i. e., for nine years—she had been regular, the period lasting from three to four days. It is worthy of remark that no examination had ever been made to determine the cause of the non-appearance of the menses, although she had been seen while acutely suffering by two doctors: another of the numerous instances where we blunder because of insufficient investigation! I could discover no exit for the menses; but on examining with a fenestrated speculum during the next period, a thread of discharge guided me to a small opening in the posterior wall of the urethra about two and a half inches from its orifice; this admitted into a cul-de-sac a sound, and made the diagnosis clear, which was that the vagina had not been developed beyond an inch from the os uteri, that the menstrual fluid had accumulated and burst through the urethra, and that the urethra had since marriage been made, with much perseverance and great suffering, to discharge the functions of the vagina. At no time, during coitus or otherwise, has there been incontinence of urine, although the bladder could be entered with the greatest ease.

After waiting a month, to allow the urethra to contract, the patient was chloroformed and tied in the lithotomy position. I made a transverse incision, an inch long, a quarter of an inch behind the urethra, and then, chiefly with finger and scissors, gradually burrowed upwards; a recurved sound held by Mr. Newton in the small hole in the urethra and a finger frequently introduced into the rectum being guides. After about two inches and a half dissection the cul-de-sac was reached, and the hole enlarged by tearing. There was no bleeding. A Hodge's pessary was introduced, and oiled lint placed in the opening. The vagina was syringed out once or twice daily. After a time the external opening threatened to contract too much, so I fastened another Hodge's pessary half introduced to the one within, and there was no further trouble. The patient progressed most satisfactorily, and on December 3rd I removed the pessaries, and left the future integrity of the passage to her husband. I saw him some time after, and he assured me that everything was satisfactory. Lately I examined the artificial vagina. The orifice was fringed by folds, which resembled Caruncule myrtiformes; it readily admitted a medium-sized speculum. To the eye the lining is undistinguishable from the mucous membrane in ordinary people, only perhaps not looking quite so velvety. The urethra had contracted, but was much more patent than normal, admitting the finger, but only for an inch.

Up to the present, fourteen months since treatment ceased, conception has not taken place; but I see no obstacle to it on her part, and certainly his energy cannot for a moment be doubted.

Yours truly,
Cheltenham, Feb. 1879. J. C. GOODING, M.D.

THE PLAGUE.

To the Editor of THE LANCET.

SIR,—In the midst of the agitation respecting the Russian plague and quarantine, as touching the necessity of adopting the latter, and as involving the theories of infection and contagion, together with the best interests, commercial and otherwise, of all countries affected by its adoption, it may not be uninteresting to your readers, professional and non-professional alike (for quotations from THE LANCET often find their way into the leading papers and periodicals of the time), to reprint a statement made by Mrs. Lane in her interesting work entitled "The Englishwoman in Egypt," which has a most important bearing upon the matter in question. The work referred to takes the form of letters, and the following excerpt is dated Cairo, June, 1843:—

"There has been an alarm of plague in Cairo, and several of the great harcems have been in quarantine. The apprehension has been induced by the fearful murrain which has raged during nine months, as a similar misfortune has proved in former years the forerunner of a severe pestilence. I mentioned to you some time since that such a calamity was dreaded, and it has in some measure arrived. At El-Mansoorah the cases of plague have not been few; and while on this subject I must tell you an extraordinary fact, which will show you that it is even possible to extract sweet from one of the bitterest of human draughts.

"Some Russians have been at El-Mansoorah for the purpose of studying the disease. As a means of discovering whether it be contagious or not, they have employed persons to wear the shirts of the dead, and paid them five piastres a day for so doing. This was a considerable salary, being equal to a shilling per day! Now, when the poor of this country consider half a piastre per day a sufficient allowance for each person, and maintain themselves well, in their own opinion, on this trifling sum, you may well conceive how charmed they might be with the liberal offers of these Russian gentlemen were it not for the risk they incurred. Risk, however, they did not imagine. The poor flocked to the physicians from all parts of the town, and *entreated* to be permitted to wear the plague-shirts. One old man urged his request, saying, 'I am a poor old man, with a family to maintain; do not refuse me; by your life, let me wear a shirt.' The women crowded round the house where their imagined benefactors had taken up their quarters, to bless them for having undertaken to support them, their husbands, and their children; and when the chief of these adventurous gentlemen found the dwelling thus surrounded, he walked forth among them, and, taking off his hat, made a courteous bow to his dark-eyed visitors; whereupon they made the air resound with the shrill zaghareet, or cries of joy.

"Not one of the shirt-wearers died, although the physicians after a short time (during which they awaited the result of their experiment) had recourse to heating the shirts to 60° Réaumur. Still the poor peasants lived and throve on their good fare; but one of the physicians died. How he took the disorder is, of course, a subject for controversy; but that the shirt-wearers escaped is a great triumph for the non-contagionists of Cairo, and from all we can learn the best informed are of this party."

Now, Sir, in the above statements there is undoubtedly much food for reflection, apart from the doctrines of "infection" and "contagion" considered *per se*, and the following questions naturally suggest themselves: 1. Was the immunity enjoyed by the devotees due to better and more abundant food-supply, enabling the physical system to effectually resist the disease by strengthening the powers of life? 2. Was the complete absence of fear a powerful factor in their preservation?

Your obedient servant,
SAMUEL SMITH,
Bristol, March 3rd, 1879. Surgeon-Major, 1st Ad. Batt. G.E.V.

A Surgeon should apply to the Registrar of the General Medical Council, 315, Oxford-street, W.

Dr. Brown.—We are obliged for a sight of the papers.

TREATMENT OF PLACENTA PRÆVIA.

To the Editor of THE LANCET.

SIR,—I send you a report of the following case of successful treatment of placenta prævia by digital dilatation of the os uteri, under somewhat difficult circumstances, thinking you may consider it worthy of publication.

Mrs. D——, aged forty-five, mother of six children, having also had two miscarriages, pregnant with her seventh child, at the seventh month of gestation requested my attendance, having been taken with strong labour pains, attended with a profuse flow of blood. I did not see her until about three hours after this occurrence, when I found the pains and discharge had both ceased. Upon examination per vaginam, I could find no presenting part and no os uteri, so that I left, giving directions to summon me again in case of a return. I called upon her the following morning, and found her in the same state, and left with the same directions. In the evening of the same day I was again called, when I found there had been a rather copious discharge of blood, unaccompanied by any pain. Upon examination, I found the rectum loaded with fæces, and I administered a dose of castor oil. This produced vomiting in half an hour afterwards, when, finding there was discharge going on, though still without pain, I gave forty grains of ergot in the form of decoction. After waiting an hour, and still finding no effect, I repeated the dose, which seemed to be equally inefficacious. The patient was becoming exceedingly faint, and the case one of considerable anxiety. I therefore introduced my hand into the vagina, and found the os lying far back in the hollow of the sacrum, and only capable of admitting one finger. I gradually dilated the os with the fingers of the right hand until it was dilated so as to admit the passage of the whole hand, when I found the placenta attached over the whole of the os. I then passed the hand through the substance of the placenta, and found a very large bag of liquor amnii, containing not less than three or four pints. (She said that she had always a large quantity of water.) After the evacuation of this, I found the fœtus lying across the transverse axis of the brim of the pelvis, the legs being doubled up on the abdomen at the upper part of the uterus. With considerable difficulty I was able to bring down one foot, and after some delay found the other, so that the case then became one of footling presentation. I must state that during the whole of this there was no pain whatever, and it was a considerable time before I could extract the head. Of course the child was dead, and after waiting about ten minutes I introduced the hand again, and brought away the placenta. The patient was in a state of pulseless prostration for some hours after, and had to be fed with egg and brandy and beef-tea; but she began to rally, and has made a very good recovery.

The practical deduction to be derived from this case, in my opinion, is that had not artificial dilatation been resorted to, the woman would have drained to death, as from the position of the child in the uterus, and the soft mass of the placenta lying over the os, and behind that the immense bag of liquor amnii, there was no force on the os to effect its natural dilatation.

Yours faithfully,
Waterloo, Hants, Feb. 19th, 1879. RICHARD WELLINGS.

UNUSUAL EFFECTS OF BELLADONNA.

To the Editor of THE LANCET.

SIR,—Perhaps you will think the following case of interest sufficient to deserve a place in your journal.

Mrs. B——, aged thirty-two, a short, spare-built woman, of nervous temperament, and in the eighth month of pregnancy, applied at the dispensary for the relief of dyspeptic symptoms and of nervous palpitation. She had suffered from a similar complaint ten years previously, and was then ordered a belladonna plaster, the application of which was followed by an eruption on the left side, in extent a little larger than the surface covered by the plaster, and of such a character that she supposed herself to have been blistered. On the present occasion she was ordered (1) an alkaline tonic for the dyspepsia, and a belladonna plaster for the palpitation. On the next day she complained of having been kept awake the whole of the previous night by the intense heat and itchiness of the whole of the left side of the trunk. On examination, the whole of the left side of the trunk was seen to be covered with a vesicular eruption situated upon a red base, which was limited by the median line behind and in front, below by the crest of the ilium. The eruption was distinctly herpetic. She was ordered (2) oxide of zinc and cotton-wool for application to the side, and to continue the alkaline mixture. Two days after, the eruption having almost disappeared, she was ordered a (3) mixture of quinine with fifteen-drop doses of tincture of belladonna, to be taken three times a day. The next day a distinctly scarlatinal rash appeared on the face, chest, and arms, and at the same time she complained of a dryness of the throat as if it were going to become sore, pain in the top of the head, and fulness of frontal sinuses; in fact, as she expressed herself, as if she were "going to have scarlet fever," the symptoms of which she was familiar with from personal experience. Neither sight nor pulse was in any way affected during the treatment. She was next ordered (4) quinine mixture without the belladonna, and on the second day the rash had completely disappeared. (5) She was ordered the last mixture with the addition of ten minims of tincture of belladonna twice a day. This producing no effect as regards the reappearance of a rash after twenty-four hours, the dose was increased (6) one-third, by taking it three times instead of twice a day, but without any effect until (7) fifteen minims were again reached, when the symptoms before recorded as occurring with a similar dose all reappeared. This point having been reached, belladonna (8) was discontinued, and in two days she expressed herself as feeling better than she had felt for a long time.

I think that the chief points of interest in the above case are—1. The external application and internal exhibition of belladonna producing two distinct eruptions. 2. The dose required for the production of the scarlatinal rash. 3. Herpes being produced by the plaster. And 4. The probable occurrence twice (though induced) of herpes zoster in the same subject.

Yours &c.,
JULIUS CÆSAR, L.R.C.P.I., &c.
Victoria Dock District Provident Dispensary, March, 1879.

LADIES' SANITARY ASSOCIATION.

To the Editor of THE LANCET.

SIR,—Your correspondent, by applying to the Secretary, Miss Rose Adams, at the Office, 22, Berners-street, Oxford-street, W., can ascertain full particulars as to the above Association, which was established in 1857, and has already done much good work.

Yours faithfully,
March, 1879. A. W. E.

EPITHELIOMA OF LIP; REMOVAL; LARGE SECONDARY DEPOSIT IN LYMPHATIC GLANDS.

To the Editor of THE LANCET.

SIR,—In the record of the transactions of the Pathological Society of London, appearing in THE LANCET for Feb. 15th, 1879, I see that Mr. Hutchinson brought forward a case of epithelioma of the lip, with extensive secondary implication of the lymphatic glands. Possibly the brief notes of an almost similar case that recently came under my notice here may be of interest.

John P——, aged sixty-eight years, had a small warty epithelial growth removed from the lower lip, close to the right angle of the mouth, two years ago. A year after he noticed a small swelling under the right angle of the jaw, which has gradually increased in size, without much pain. At the present time a hard growth, the size of a large orange, exists below the jaw on the right side, and at its lowest aspect is showing signs of commencing suppuration. The case is of interest, as showing rapid secondary infiltration of the lymphatics after the primary growth had been apparently completely extirpated.

Your obedient servant,
ARTHUR G. BLOMFIELD, M.R.C.S.
West Norfolk Hospital, King's Lynn, Feb. 20th, 1879.